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ANNUAL REPORT

OF THE

BOARD OF EDUCATION

OF THE

STATE OF CONNECTICUT,

[For May Sess. 1877.]

PRESENTED TO THE

General Assembly, January Session, 1877,

TOGETHER WITH THE

ANNUAL REPORT OF THE SECRETARY OF THE BOARD.

NEW HAVEN:
TUTTLE, MOREHOUSE & TAYLOR, PRINTERS.
1877.

MVW
G.A.

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NEW HAVEN:
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1877.

3266

MEMBERS

OF THE

STATE BOARD OF EDUCATION.

For the Year 1876–77.

Ex Officio.

His Excellency, CHARLES R. INGERSOLL, New Haven.
His Honor, GEORGE G. SILL, Hartford.

By Appointment of the General Assembly.

GEORGE M. WOODRUFF, Litchfield,	Term expires 1877.
THOMAS A. THACHER, New Haven,	" " 1878.
ELISHA CARPENTER, Hartford,	" " 1879.
WILLIAM H. POTTER, Mystic River,	" " 1880.

For the Year 1877–78.

Ex Officio.

His Excellency, RICHARD D. HUBBARD, Hartford.
His Honor, FRANCIS B. LOOMIS, New London.

By Appointment of the General Assembly.

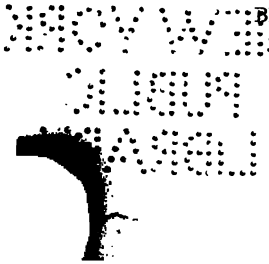
FRANCIS A. WALKER, New Haven,	Term expires 1878.
ELISHA CARPENTER, Hartford,	" " 1879.
WILLIAM H. POTTER, Mystic River,	" " 1880.
JAMES C. LOOMIS, Bridgeport,	" " 1881.

SECRETARY OF THE BOARD.

BIRDSEY GRANT NORTHROP, New Haven.

Office.

Old State House, New Haven.



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REPORT

OF THE

BOARD OF EDUCATION

TO THE

GENERAL ASSEMBLY OF CONNECTICUT.

THE Board of Education herewith present their Twelfth Annual Report.

A change of the legislative session from May to January

CORRIGENDA.—Since a part of this edition was printed, the leading advocates of the Metric System in this country, in order to simplify the nomenclature, have agreed to change the spelling of a few terms, using k instead of c in dekameter, hektometer and all prefixes of dek and hek, and ar, hectar and centar instead of are, hectare and centare. On page 48, sixth line from top, read *distant* in place of *friendly*. On page 57, sixth line from bottom, read *ordnance* instead of *ordinance*. The problem on page 63, quoted from Mr. Putnam, contains mistakes which are corrected in last edition. On page 67, last line, erase *exclusively*. On page 76, erase the first six words after *nickel*.

all kinds 128,922, an increase of 288. Average attendance at public schools in winter 74,369, increase for the year 2,434. Average attendance at public schools in summer 66,621, increase for the year 1,370.

Perhaps no single feature of our public school system affords better evidence of its healthful condition than its uninterrupted progress during a series of years. A steady growth is essential

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THE Board of Education herewith present their Twelfth Annual Report.

A change of the legislative session from May to January involves the necessity of a second report from the Board within a period of eight months. Nothing has occurred, in the interval, to require special notice of the Board, beyond the usual suggestions and statistics herewith presented by the Secretary. Particular attention is invited to the tabulated statements prepared with great care and labor, and to the treatment of such topics as come under his observation while engaged in the performance of his official duties.

The following items relating to attendance are of special interest. The average length of public schools was 178.13 days, an increase of 1.87 days. The number of children between 4 and 16 years of age, in January, 1876, was 135,189, an increase of 213. Number between 4 and 16 years of age, in no school, 12,297, decrease of 673. Number in schools of all kinds 128,922, an increase of 288. Average attendance at public schools in winter 74,369, increase for the year 2,434. Average attendance at public schools in summer 66,621, increase for the year 1,370.

Perhaps no single feature of our public school system affords better evidence of its healthful condition than its uninterrupted progress during a series of years. A steady growth is essential

to its prosperity. No business enterprise more quickly or seriously feels the adverse influence of a sudden change of policy in its management, of the lack of competent administrative power, or of unwise legislation, than the system of public education. Continued effort to secure wise and efficient supervision, and the best methods of instruction, can hardly fail to preserve the onward movement already attained.

It may be regarded as a hopeful sign for the future that the schools are well patronized while business stagnates, enterprise is checked and depression is manifest in all pursuits in the community. It is a fact of common observation, that the schools are depleted when business prospers and employment is in demand; on the contrary, that they are well attended when business is dull and unremunerative. It is a gratifying indication of a sound public sentiment when by common consent parents seek to secure for their children the advantages of education, instead of suffering them to acquire indolent and vicious habits, for want of occupation. So, when the material interests of the State are depressed, a fresh impulse is imparted to mental culture, by which the young are better prepared to perform, in the future, their duties as citizens. And the adversity which inflicts pecuniary loss carries with it a compensation, by elevating and rendering more intelligent those who are to have a controlling influence in public affairs.

The advantages enjoyed by an educated community over one oppressed with the disabilities of ignorance, need no illustration. Civilization and refined society are the offspring of the former; the rudeness and violence of savage life are the natural fruits of the latter. The principle is the same when applied to individuals. Educated mind is able to interpret the laws of nature, and so to employ them as to diminish the necessity of great physical effort in every department of manual labor; to increase, almost without limit, the abundance of everything that can contribute to the comfort and happiness of mankind.

In an intelligent community human laws have a controlling power, by which the rights of its members are protected. By them the possession of property, the security of person and a harmonious relation of individuals to each other are preserved. Educated mind has a conservative influence which thoroughly

pervades all private and public interests. It is an invisible force which invigorates the efforts of men in every enterprise and guides them to success. Every domestic circle is made happier through its influence; every neighborhood and town recognizes it as an element of prosperity. The indispensable necessity of universal education under a government where the will of the people is law, was recognized in the infancy of the nation, and has never been more apparent than now.

How to devise methods by which increased efficiency may be imparted to our system of public instruction, is still a question of deep interest and earnest inquiry. It must be admitted that much has been accomplished. Laws have been enacted to meet all contingencies. Increased facilities have been provided for the better preparation of teachers for their duties by normal instruction. The best methods of teaching and school government have been presented at Teachers' Institutes held in various parts of the State. Lectures have been delivered, on a great variety of subjects, in the presence of teachers and citizens, well calculated to create, in the former, a deep sense of responsibility and need of high qualifications for their vocation; in the latter a clearer comprehension of the great benefits which education can confer on a people.

Voluntary associations of teachers have been formed, in which educational topics are discussed, and the experience of those long in service contributes largely to aid beginners in the work. The State Teachers' Association is under the direction of the leading educators of the State, and holds an annual meeting, which is attended by large numbers of teachers of all grades. Educational journals containing the best information pertaining to the teachers' vocation, and books of like character are increasingly in demand. The Normal School is under the charge of an able and efficient corps of instructors, and those who become pupils of the institution enter with great enthusiasm upon their work of preparation; and their subsequent success as teachers affords abundant evidence of the usefulness of this school, not only in supplying competent teachers, but in stimulating others, who have not had the advantages of special preparation, to aim to reach a higher standard.

This recital of operations in the educational department of

the State, brief as it is, perhaps is sufficient to suggest the query, is any additional provision needed to give a new impulse to the cause? If any is desirable, what is possible?

Before attempting to answer these questions, we desire it to be fully understood that the vast amount of labor that has been performed during the past ten years is thoroughly appreciated; that the steady advance in the general administration of the schools is recognized, and that the prevailing sentiment of the people is far more favorable to the improvement of our system of education than formerly. If there yet remain defects to be remedied, or faults to be corrected, a continuation of the same efforts is essential to future success, whatever other means may be proposed or adopted.

The School Visitors, in their annual reports concerning the condition and progress of the schools in the towns of the State, furnish a large amount of important information. Extracts from these reports bring to view many hindrances that prevent the schools from reaching that degree of perfection and usefulness of which they are capable. Among those named with considerable emphasis is the want of interest and coöperation of parents, in the administration of the schools.

Next to the home where the children are born, the school where they are taught and trained, by which their future welfare and usefulness are largely to be determined, should be regarded by the parent as an institution worthy of his most careful attention. The school room is but an outer apartment of the home; the teacher and parent are co-laborers; their purposes and interests should be one. The same rule applies to the whole neighborhood of families, for whose children the school becomes a place of common resort for instruction. The teacher assumes the position of assistant to the community of parents, and supplements the teaching and training of the several households. The intimate relation and mutual obligation of parent, teacher and pupil are manifest. No one can, or ought to have, a deeper interest in the prosperity of the school than the parent. He is a co-partner in an enterprise affecting more vitally private and public interests, than any other existing.

A brief consideration of this topic will justify school officers

in regarding want of coöperation as a serious obstacle in the way of successful management of school interests. It may suggest also the possibility of a revival of interest in the schools among parents, through whose influence fresh vigor may be created and more valuable results secured.

It is not always easy to determine how far the authority and aid of the State can be employed, in the education of the young, without so far relieving parents from the necessity of effort, that they shall lose their feeling of responsibility and throw upon others that service which belongs peculiarly to themselves. The State has an interest in the education of all its citizens, since the public welfare, and even the life of a free government depend upon its general diffusion. To the family it is essential, because it confers benefits upon every member that cannot be derived from any other source. Thus the advantages of education are common to both the State and family; and neither can relax efforts to promote it without a mutual loss.

The end to be secured then is, simply, a proper adjustment of effort between those who are personally interested in the education of the children, and those who act in an official capacity, whether for the general interests of the State, or directly for schools of the town or school district. Those who have been employed in behalf of the State cannot be expected to greatly increase the efficiency of their labors without a manifestation of increased interest and active coöperation of parents.

This will be evident, if we consider some of the other obstacles to the improvement of the schools, as stated in the extracts already referred to.

1. The employment of incompetent teachers is one of the fatal mistakes, in school management. Whatever other provision may be made, success or failure must depend on the teacher. The finest accommodations, the wisest provision of school officers and the most earnest desires of parents are of little avail, if the teacher is incompetent. A watch without a main spring, a ship on the ocean without a pilot, an army without a commander, would not be more useless than a school without a suitable head to instruct and control it. A false economy too often dic-

tates the employment of cheap teachers. Other considerations than the best interests of the school, frequently determine the choice of those to whose care the children are committed. It may be said that superior teachers are rare, and an inferior one must be employed, or none. Yet, it is also true, that the supply will always be equal to the demand. It is just here that parents can effectually coöperate with the school officers in elevating the standard of qualifications by insisting upon a higher standard. Let parents resolve that their children shall have competent teachers and they will be forthcoming.

2. Inefficient supervision is too often the cause of failure in the schools. Perhaps, as a rule, no better men are appointed to discharge the duties of other public offices, in the towns, than those elected as school committees; yet special qualifications are required of the latter, and peculiar difficulties lie in the way of their success which do not occur elsewhere. With the small inducements offered to assume the duties, and the large amount of self-denial required to endure all the perplexities of the office, it is really surprising that so many competent men are found to undertake the responsibilities of the position. Yet, when the duty of selecting teachers falls on one who fails to comprehend the qualifications required, or to understand the nature of the teacher's work—who through lack of interest or pressure of private business neglects his duties, serious loss or total failure are imminent. It is the province of parents to select persons to whom they may safely commit the best interests of their children, and it is their duty to offer such inducements as shall secure the most competent persons and best results.

3. Inadequate provision for school purposes is, to say the least, a weakness in the school system. From time immemorial the country school house has been an object of ridicule on account of its cheapness and neglected condition. While great improvements have been made, of late years, in school-house architecture, specimens of the olden style remain in many towns to confirm all that has been said and written about this monument of public economy. One would suppose that, within those walls, where the children are to spend a large portion of their tender years, some of the comforts which men

demand for themselves in mature life, might be provided for the young, to mitigate in some degree the severity of those tasks which rigid mental discipline requires. But the style of the carpeted floor, the cushioned seat, the frescoed walls of the church, the rich finish and furniture of the bank or elegant store, would be regarded by many as quite out of place where children are assembled for the culture of the intellect, and the acquirement of refined habits and manners.

Most of the cities and many large towns have erected convenient Grammar and High School buildings, and hereafter the aggregate expense for school houses in the State will therefore be likely to diminish.

Often large amounts of money are expended in the erection of elegant buildings, when the apparatus essential for the convenience and success of the school fails to be furnished. The tools needful for daily work are wanting. Inadequate provision for warming and taking care of the premises, occurs oftener than in any manufacturing establishment or mechanic's shop. A competent teacher works successfully, as does a workman in any other business, only as necessary implements and conveniences are provided for his use. If denied them, his efforts are but a partial success, at best. What then can reasonably be expected of a poor teacher, with poor pay, in a dilapidated house, without conveniences? Here is an opportunity for parents to require improvements. There is no other authority competent to order them.

4. The demoralizing influences of irregular attendance, which have been the source of complaint, by school visitors and teachers, can be checked by no authority so effectually as by that of the parent. It is the home influence chiefly that controls or permits this disturbing, disorganizing element in the school. In vain do teachers labor to correct the evil, so long as their efforts are thwarted by the neglect of parents to coöperate with them; or while they act in direct opposition to rules designed to promote regularity and progress. The school officials are powerless to prevent the pernicious consequences of a practice which cannot fail to sap the vitality of the whole system of instruction.

In many districts the loss by absence of pupils, while mem-

bers of the school, is from thirty to fifty per cent. If the loss could be confined to the absentees, the bad effects would be sensibly diminished; but, unfortunately, irregular pupils not only sacrifice their own privileges, but interfere with and seriously impair those of pupils who are regular in their attendance. As a pecuniary consideration, the loss is a large per centage of all the money appropriated for the current expenses of the schools, wherever a large irregularity prevails. But the disheartening influence upon teachers and pupils, and a serious reduction of the standard value of the school in the minds of parents, tend to a general paralysis of all effort and interest in the cause of education.

The Board have deemed it expedient to present the foregoing remarks relating to hindrances which prevent the full success of the schools, as an answer to the query whether any additional provision is needed to give a new impulse to the work of public instruction. We do not propose any specific legislation on the subject, but desire to call attention of the legislators and through them of the people of the State to this important subject.

It has been no small part of the work of the Secretary to address parents and citizens on the importance of their personal interest and action in the management of the schools. But, his influence must necessarily be too general, in so large a field, to reach definite results in neighborhoods where active efforts are most needed. If any measures can be adopted to awaken a new interest and secure a more vigorous, united activity of parents, teachers and school officers in behalf of the schools, doubtless many obstacles now in the way will be overcome, and a higher degree of perfection will be reached in the education of the children of the State.

CHARLES R. INGERSOLL,
GEORGE G. SILL,
GEORGE M. WOODRUFF,
THOMAS A. THACHER,
ELISHA CARPENTER,
WILLIAM H. POTTER.

JANUARY 1, 1877.

REPORT OF THE SECRETARY.

To the Board of Education of the State of Connecticut:

GENTLEMEN,—My Tenth Annual Report, being the Twelfth since the organization of the Board of Education, and the Thirty-second from this Department, is herewith submitted.

STATISTICS OF THE PUBLIC SCHOOLS OF CONNECTICUT, FOR THE YEAR ENDING AUGUST 31ST, 1876.

Number of towns in the State,	167
Number of school districts in the State,	1,493
Decrease for the year,	13
Number of public schools,	1,628
Decrease for the year,	22
Number of departments in public schools,	2,499
The same number the previous year.	
Average length of public schools,	178.13 days
Increase for the year,	1.87 days
Number of children between 4 and 16 years of age, in January, 1876,	135,189
Increase for the year,	213
Number of scholars registered in winter,	98,923
Increase for the year,	521
Number of scholars registered in summer,	89,832
Increase for the year,	1,237
Number registered who were over 16 years of age,	4,454
Increase for the year,	30
Number of different scholars in public schools,	119,106
Decrease for the year,	383

Number in other schools than public schools,	9,816
Increase for the year,	671
Number between 4 and 16 years of age in no school,	12,297
Decrease for the year,	673
Number in schools of all kinds,	128,922
Increase for the year,	288
Average attendance at public schools in winter,	74,369
Increase for the year,	2,434
Average attendance at public schools in summer,	66,621
Increase for the year,	1,370
Percentage of whole number registered in the year, as compared with number enumerated in January, 1876,	88.10
Decrease for the year,	.43
Percentage of children in schools of all kinds,	95.36
Increase for the year,	.06
Percentage of those enumerated registered in winter,	73.17
Increase for the year,	.27
Percentage of those enumerated registered in summer,	66.45
Increase for the year,	.81
Percentage of average attendance in winter,	75.18
Increase for the year,	2.08
Percentage of average attendance in summer,	74.05
Increase for the year,	.40
Average attendance in winter, as compared with number enumerated in January, 1876,	55.01
Increase for the year,	1.72
Average attendance in summer, as compared with number enumerated in January, 1876,	49.28
Increase for the year,	.94
Number of teachers in winter—males, 767; females, 1,889; total,	2,656
Increase, males, 46; decrease, females, 21; total increase,	25
Number of teachers in summer—males, 321; females, 2,317; total,	2,638
Increase, males, 49; decrease, females, 7: total increase,	42

Number of teachers continued in the same school,	1,780
Increase for the year,	12
Number of teachers who never taught before,	539
Decrease for the year,	18
Average wages per month of male teachers,	$67.43
Decrease for the year,	2.62
Average wages per month of female teachers,	37.16
Decrease for the year,	.19
Number of schools of two departments,	118
Increase for the year,	4
Number of schools of more than two departments,	152
Increase for the year,	2
Whole number of graded schools,	270
Increase for the year,	6
Number of departments in graded schools,	1,148
Increase for the year,	55
Number of new school houses built in the year,	26
Increase for the year,	5
Number of school houses reported in good condition,	883
Decrease for the year,	16
Number of school houses reported in fair condition,	556
Increase for the year,	25
Number of school houses reported in poor condition,	212
Decrease for the year,	12
Dividend per child from School Fund, 1876,	$1.00
Income of School Fund distributed, 1876,	135,189.00
Amount paid for schools from State Tax,	202,783.50
Income of Town Deposit Fund,	47,665.00
Income of Local Funds,	12,562.54
Amount raised for schools by Town Tax,	711,167.98
Increase for the year,	43,000.85
Amount raised for schools by District Tax,	399,834.65
Decrease for the year,	63,940.54
Amount of voluntary contributions for schools,	4,599.11
Amount received for public schools from other sources,	46,763.28

Total amount rec'd for public schools from all sources,	$1,560,5
Decrease for the year,	32,2
Amount for each child enumerated,	1
Decrease for the year,	
Amount expended for teachers' wages,	1,085,2
Increase for the year,	28,0
Amount expended for fuel and incidentals,	133,3
Decrease for the year,	6,7
Amount expended for new school houses,	95,7
Decrease for the year,	39,3
Amount expended for repairs of school buildings,	68,8
Decrease for the year,	8,6
Amount expended for libraries and apparatus,	7,4
Decrease for the year,	8
Amount expended for other school purposes,	138,4
Increase for the year,	4,2
Total amount expended for public schools,	1,529,1
Decrease for the year,	23,4

A Statement of the amount of money received for Common Schools, from the several sources, for each of the last ten years, with the yearly increase or decrease in the total amount, and for each child enumerated.

Report of the Year.	Children enumerated Jan., 1867, '68, etc.	Increase from previous year.	Dividend per Child from School Fund.	Amount of dividends from School Fund, Feb. 1867, '68, etc.	From Town Deposit Fund.	Local Funds.	From Town Tax.	District Tax.	Rate Bills and Voluntary Contributions.	Other Sources.	Total Receipts from all sources.	Increase from previous year.	Per Child.	Increase per Child.
1868	120,884	2,104	$1.10	132,972.40	44,979.34	*d*.....	149,680.99	466,931.90	*e*89,260.03	*g*99,981.66	983,806.32	278,819.62	8.14	2.20
1869	123,650	2,766	1.10	136,015.00	43,985.75	8,919.15	160,347.35	467,804.77	*e*139,406.84	86,607.85	1,043,086.71	59,280.39	8.44	.30
1870	124,082	432	1.00	124,082.00	44,883.94	12,300.34	415,318.26	491,420.61	*f*15,996.86	165,150.82	1,269,152.83	226,066.12	10.23	1.79
1871	125,409	1,327	1.00	125,409.00	45,650.19	7,920.77	568,387.50	498,846.09	*f*11,907.73	225,895.07	1,484,016.35	214,863.52	11.83	1.60
1872	128,468	3,059	1.00	128,468.00	45,167.37	9,627.23	641,837.76	410,708.11	*f*11,012.47	256,796.68	1,503,617.62	19,601.27	11.70	*h*.13
1873	131,748	3,280	1.00	*a*197,622.00	45,712.80	11,348.05	642,194.11	485,523.56	*f*10,250.79	50,017.70	1,442,669.01	*h*60,948.61	10.95	*h*.75
1874	132,908	1,160	1.00	*b*332,120.00	45,452.58	12,196.45	598,873.44	499,555.19	*f*7,172.42	47,119.12	1,542,489.20	99,820.19	11.60	.65
1875	133,528	620	1.00	*b*333,820.00	46,003.03	16,064.71	669,856.88	502,500.80	*f*6,637.89	38,064.33	1,612,947.64	70,458.44	12.08	.48
1876	134,976	1,448	1.10	*c*350,339.60	46,534.97	15,614.79	668,167.13	463,775.19	*f*6,881.26	41,545.17	1,592,858.11	*h*20,089.53	11.81	*h*.27
1877	135,189	213	1.00	*b*337,972.50	47,665.00	12,562.54	711,167.98	399,834.65	*f*4,599.11	46,763.28	1,560,565.06	*h*32,293.05	11.54	*h*.27

a, Including $65,874 from the State Treasury, or 50 cents to each child, i. e. from State Tax.
b, Two-fifths from the School Fund, three-fifths from State Tax.
c, $1.10 per child from the School Fund; $1.50 per child from State Tax.
d, Included with receipts from "Other Sources." *e*, Rate Bills.
f, Voluntary Contributions. *g*, Including income from "Local Funds." *h*, Decrease.

Report of	Income from Funds.	Raised by Taxes, Voluntary Contributions, etc.
1868	*$187,951.74	$795,854.58
1869	188,919.90	854,166.81
1870	181,266.28	1,087,886.55
1871	178,979.96	1,305,036.39
1872	183,262.60	1,320,355.02
1873	188,808.85	1,253,860.16
1874	190,497.03	1,351,992.17
1875	195,595.74	1,417,351.90
1876	210,370.36	1,382,487.75
1877	195,416.54	1,365,148.52

* *Estimated* income of Local Funds, $10.000.

Report of the Year.	Average Length of Schools.	Enumerated 1868, 1869, etc.	Registered.		Different Scholars Registered.	Per cent. Registered.	In Private Schools.	No. in both Public and Private Schools.
			W.	S.				
1869	163.05	123,650	82,140	75,177	99,390	80.38	------	--------
1870	161.75	124,082	88,348	78,865	105,313	84.87	9,583	114,896
1871	168.51	125,409	94,092	83,192	110,640	88.19	9,304	119,944
1872	172.41	128,468	94,408	83,095	113,588	88.50	8,754	122,342
1873	173.34	131,748	94,787	83,874	114,805	87.14	9,029	123,834
1874	174.18	132,908	95,199	86,987	114,857	86.41	8,529	123,386
1875	176.29	133,528	99,550	89,674	119,298	89.34	8,422	127,720
1876	176.26	134,976	98,402	88,595	119,489	88.53	9,145	128,634
1877	178.13	135,189	98,923	89,832	119,106	88.10	9,816	128,922
Incr'se	15.08	11,539	16,783	14,655	19,716	7.72	233	14,026

Report of the Year.	Average Attendance.		Teachers' Wages per Month.		Total pay of Teachers.	No. of Teachers continuously employed.
	W.	S.	Male.	Female.		
1869	59,489	53,645	$56.64	$26.93	$609,658.05	1,453
1870	64,707	56,309	58.74	29.16	695,539.25	1,568
1871	66,902	58,348	63.10	31.29	785,680.04	1,407
1872	67,018	58,349	66.56	32.69	833,759.96	1,434
1873	67,599	58,113	67.01	34.09	888,871.89	1,508
1874	67,172	60,905	69.03	36.05	959,229.40	1,574
1875	71,433	63,052	71.48	36.67	1,021,714.07	1,690
1876	71,935	65,251	70.05	37.35	1,057,242.19	1,768
1877	74,369	66,621	67.43	37.16	1,085,290.05	1,780
Incr'se	14,880	12,976	$10.79	$10.23	$475,632.00	327

STATISTICS.

The decennial tables on the two previous pages merit careful examination. They furnish ample encouragement to continue the efforts that helped on such results as these figures show. The Board of Education have aimed to come into direct fellowship, sympathy and coöperation, with the teachers and friends of Education throughout the State. This plan has included the personal inspection of schools, lecturing in every town, holding of Educational Conventions and Teacher's Institutes, the issuing of numerous circulars to teachers and school officers, visiting all our leading manufactories that employ children, conferring with school officers on various school questions and especially in regard to neglected children and the best means of securing their attendance at school, besides an extensive correspondence with school officers and teachers. These tables show that during the last decade, and especially during the last nine years, there has been gratifying progress. In the average length of schools the increase is more than fifteen days (15.08), in the number of teachers continuously employed, 327; in the pay of teachers, $475,632; in enumeration, 11,539; in the number of different scholars registered, 19,716; in the number registered in winter, 16,783; in the number registered in summer, 14,655; in the average attendance in winter, 14,880; average attendance in summer, 12,976; in the percentage of attendance in public schools, 7.72; in the percentage of gain in schools of all kinds, 2.76. The increase in the total receipts from all sources during the last twelve years, or since the organization of the Board of Education, is $998,323.66, and during the last decade the same increase is $576,758.74. These figures show a great advance of popular interest in public schools. That a people characterized by a wise frugality should choose to tax themselves to this increased extent for the improvement of their schools, shows a growing appreciation of their importance.

While advocating rigid economy, the people of Connecticut do not regard the mere saving of money as true economy, when it involves a proportionate loss of something of greater value. The present financial embarrassments, though affect-

ing all classes, witness no diminution of popular interest in public schools.

Our statistics—dry as they may seem—furnish important lessons. Based upon returns made by the School Visitors of every town, they comprise facts and figures which include every school, every pupil and teacher of the State. Special efforts have been made to secure the utmost accuracy attainable. Attention is called to the statistical tables in the appendix, in which are given the population of each town, its grand list, the number of school districts, number of schools, number of different departments, amounts expended for new school houses, for library and apparatus, with many other particulars. That has proved to be a useful table in which all the towns of the State are annually arranged according to the amount of taxable property in each to every child of school age, showing the relative wealth of the several towns as compared with the number of their children, and indicating which towns are most able to provide well for their public schools. This comparison is made both State-wise and county-wise. In like manner the towns of the State and of the several counties are arranged according to the percentage of their taxable property appropriated for public schools during the previous school year—and also the amount raised for each child enumerated. There are other tables, in which the towns are arranged according to the percentage of attendance during some part of the previous year and of average attendance in winter. These figures tell at once where non-attendance and irregular attendance are most prevalent, and facilitate our efforts in behalf of neglected children. Many a town finding itself at the foot of the list in its county or in the State, in some of these points of comparison, has thus been stimulated to new effort. Some towns thus admonished have risen from the lowest place to a good position in the list. The evidence of the practical value of these tables is manifold.

NEGLECTED CHILDREN.

The gain in attendance already secured amply compensates for the work in this direction and invites its vigorous prosecution. In my visits to towns, schools, and factories, and in public lectures, the needs of the neglected children are kept in view. The cordial coöperation of the leading manufacturers of the State in securing the school attendance of the children in their employ is gratefully acknowledged. The chief trouble is not with the large manufacturers, but with the far greater number who employ a few children in shops, or stores, or a single one on the farm or in the family. There are also, in some towns, a few families so degraded by intemperance and its attendant vices that their children are little, if at all, above barbarism. The fact needs to be re-stated that our law in regard to non-attendance applies not to manufacturers only, but to merchants, mechanics, farmers, and all employers of children, and should be executed with equal strictness towards individuals and companies. I respectfully solicit local coöperation in carrying out the provisions of this law—which has so manifestly met the approbation of the people of this State without reference to party or sect. No opposition to this law has ever been expressed, so far as my knowledge extends, either in the legislature, in the press, or in any public meeting. But this rigid law should not relax our efforts at persuasion—in making our schools so attractive and their substantial advantages so inviting that none can afford to lose them—so that attendance shall be regarded as a privilege rather than a legal necessity. Much as has been done, there is need of better results. We may not rest, so long as there remain any neglected children. I therefore again request all persons who know of any instance of the employment of children under fourteen years of age who have not attended school the time required by law, or of any children growing up in indolence and degradation amid intemperance and vice, to notify me of such fact, giving the names and location of the employers of the children and parents. The friends of education throughout the State are invited to communicate all facts as to non-attendance. The letters sent me in response to a similar request

last year received prompt attention. I should regard a journey to the remotest part of the State amply compensated, if thereby but a single child were brought to school. By the cordial coöperation of teachers and school officers, a grand result in this direction can be accomplished.

Since our last Report, Mr. Giles Potter has continued his work as circumstances required, spending thirty days in this service, for which he has received one hundred and fifty dollars. His expenses while in the discharge of his duties were one hundred and twenty-two dollars and eighty-nine cents. The total amount paid to him, is two hundred and seventy-two dollars and eighty-nine cents. During the next year it is proposed to follow up the work of visiting both schools and factories more fully and systematically. The Board of Education is fortunate in finding so competent and faithful a gentleman ready to respond to their call as the exigency may require, in this very useful work.

EDUCATIONAL LESSONS FROM THE CENTENNIAL.

The Centennial Exposition was a school for the nation. Its lessons are manifold. The grandest product of American Education—the proudest exhibit at Philadelphia—was the visitors themselves. This product is as directly traceable to our schools as are the fabrics there shown to the mills that made them.

That so many millions of people* could attend the Exposition, and that 268,653 by actual count of the unerring turnstiles should gather there in a single day, not only without violence, but maintaining order, quiet and decorum, and showing proofs of self-command, sobriety and education, reflects more honor upon our nation than did all the works of art, skill and inventive talent there displayed. That this Exposition, though receiving less aid from the general government than any other—mainly a voluntary work of the people—the fruit of private munificence, should prove of all others, our foreign visitors themselves being judges, the largest in extent, the best in quality, the fullest in attendance, and the first that

* The total number of admissions was 9,789,392.

ever proved a financial success, is also a tribute to American schools—a demonstration of the practical value of universal education, without which such achievements would have been an impossibility. Our visitors from abroad were struck by the self-poise and orderly bearing of our people—by the absence of gendarmes, so conspicuous everywhere in the old world. Nowhere in Europe would so large a throng be allowed to assemble without the presence of the military, which masks the necessity of constantly and visibly guarding the State, under the semblance of giving eclat to all public occasions and celebrations.*

This Exposition has broadened the views of millions. It was to them the world in miniature where they gained new ideas of the achievements of modern civilization. While examining the productions of almost every nation of the globe, they breathed a cosmopolitan air—a healthful corrective of conceit, narrowness, prejudice and exclusiveness, enlarging each one's acquaintance and sympathies, and making more real the great brotherhood of the human family.

Travel is an important means of education. Personal observation gathers the most striking materials for investigation and reflection. But the Exposition, like an extended panoramic tour, epitomized to the many the lessons which a trip around the world amplifies to a few. In a brief time and at compar-

* Prof. Wm. H. Brewer, who, as one of the Bureau of Judges, spent most of the summer at Philadelphia, reports to me the following conversation of a foreign officer: —

"I have been here some months, and have seen great crowds at the Exposition, sometimes over a hundred thousand in a day. They cover the ground like ants, but the strangest thing to me is, that there are no riots, no disturbance, no violence, and yet no soldiers are here to hold the people in check. I have seen some military companies, playing soldiers and coming in their uniforms to see the show, but taking no part in preserving the peace. While there has been no rowdyism, I have seen plenty of ill manners—well dressed women for example—taking hold of a Chinese Commissioner's cue to see if it were real hair, or stop and stare at a Spanish Guard's bright uniform or a Turk's costume, and ill-bred boys point and laugh at his baggy trousers. In my country, no woman, however strong her curiosity, would show such ill breeding; and yet, with all our politeness, we must keep soldiers always at hand to restrain the people from disorder, riots and pillage. But with all the ill manners in America, the people seem very kind, stepping aside for a rolling chair, and even outside, when there is a horrible rush for the cars, with pushing and rudeness, nobody fights, but all seem good-natured. All this is very curious to me."

atively little expense, it showed many millions of people what it would have cost each one months, if not years, to learn by travel alone. It was also a school of fellowship and good feeling. The intermingling of our people from the north and south, the east and west, meeting on common ground at the centennial anniversary of the Republic, forming new social ties, strengthening old associations, kindling patriotic fervor and fraternizing all, was a timely antidote to the repellent influences of an intense political struggle.

The intermingling also of representatives of the great civilized and semi-civilized nations of the globe, meeting on the common ground of sympathy with the progress of humanity, each nation willing to impart, and anxious to receive, all more or less prompted to deeds of national generosity, and all mutually revealing and discovering new traits of excellence—was of incalculable value in disposing the people of the world to international peace. Harmonious conferences in cases of national disagreements, and arbitrations like that of Geneva, will be the necessary sequences of the hearty international exhibition of 1876; and so long as Krupp cannons and monitor turrets are sent as delegates to such a reünion of a common human brotherhood, they will be far less likely to do that fearful work in the destruction of human life for which they are designed.

Every scholar who saw the magnificent exhibits of China and Japan will more easily orient himself and henceforth study the geography and history of those countries with livelier interest. Still more will a new charm and vividness be imparted to all delineations of the nearer nations of Europe. It was a great and grateful surprise to all, that in the three departments of Bronze, Lacquer and Ceramic works, Japan was unrivaled. The brightness and intelligence of the one hundred and fifteen Chinese students whom I escorted from Hartford to Philadelphia, their quiet and gentlemanly deportment and still more their examination papers and *English* compositions shown in the Connecticut Educational Exhibit, have already modified public sentiment as to the character and capacity of that most populous nation of the globe. These written exercises were pronounced by eminent educators, including many State and city superintendents of schools, among the most remarkable

papers of the kind in the Exposition. The Bureau of Judges for Educational Exhibits, of which Sir Charles Reed, LL.D., of London, was President, gave a special award to this work of Chinese students in the following words: "The work shown is generally good, some of it of very extraordinary excellence, showing on the part of the pupils, not only great proficiency and ability, but remarkable command of the English language and thoroughness in their studies. By introducing into the schools of this country so large a number of Chinese youth, the Chinese government has rendered a great service to the people of China and contributed somewhat to the solution of a question of vast importance to this country." These promising Chinese students—already favorites in the choicest schools and families of New England, and winning prizes for their proficiency, in competition with American boys,—ought by their example and achievements to counteract the prejudice against their race, current along our Pacific coast, and thus, in the words of the Judges' award, "contribute somewhat to the solution of a question of vast importance to this country."

This educational scheme is a new departure for the oldest and largest nation of the globe, and initiates a national movement most significant and prophetic, promising to expand into broad agencies and vast results. These ambitious students when equipped with the best education—academic, collegiate, and professional—which America can give in a thorough course of fifteen years, will return to China as the exponents of the highest civilization, and become the benefactors of their country by introducing modern science, inventions and internal improvements. This far-reaching plan has enlisted the cordial sympathy of the most intelligent minds in our country. It was a fit expression of this national feeling when the President of the United States honored these students with a special reception at Philadelphia, personally greeting each one, and the President and the Director General of the Exposition, Presidents of Colleges and other eminent men addressed them in Judges' Hall. It is a compliment to Connecticut that Hartford is selected as the permanent head quarters of the Chinese Educational Commission, for the support of which the Chinese government has appropriated one million and a half of dollars.

The United States Minister at Peking forwarded to me sometime ago a letter addressed to him by Prince Kung the Prime Minister of China, the following extract from which shows how gratefully his government appreciates the reception accorded to these students.

"The generous and thoughtful kindness of the Connecticut Superintendent of Education towards each of the students is plainly apparent. Such generosity is worthy of praise and commendation; it is highly appreciated by this Government and will be gratefully remembered. When communicating with your Government, I beg that you will convey to those who have so kindly manifested an interest in the educational mission my warmest thanks. Such acts of kindness tend to strengthen and make lasting the sympathy and friendship now so happily existing between your country and mine, a fact which will be as gratifying to your Excellency as to me.

With thanks and compliments, etc.,

Card of PRINCE KUNG.

There has been in some portions of our country a deeply-seated prejudice towards the semi-civilized nations of the world, which does them injustice and lessens our power to promote their progress and our own commercial growth. We realize and magnify their deficiencies, while we are ignorant of their good qualities, in some of which they are even our superiors. There are two chief sources of such prejudice: the superficial nature of the reports on which our information is founded, coming to us originally through the geography of the schoolroom; and the unfair characterization of a whole nation from the ill-conditioned emigrants who reach our shores. But to be able to deal justly and wisely with a weaker people, instead of indulging in contempt for their deficiencies, we must ascertain and keep before us those points in which they deserve our respect. This the Exhibition has enabled us to do, especially toward the great Empires of Eastern Asia. Rash legislation in regard to the Chinese on our Pacific coast may have thus received a permanent check.

Our commercial intercourse with China, already great, is rapidly growing. The new demand there for American cottons is one of many illustrations of its growing importance. America cannot afford to alienate China. In no other direction is there

such room for the expansion of our trade and commerce as with China and Japan. Our nearest neighbors across the Pacific, they may contribute immensely to our prosperity. This is not the place to discuss the influence of the Exposition in fostering our industrial growth and manufacturing and commercial enterprises, though it has already created a large demand for American wares in foreign markets. It is a significant fact that the excess in the value of our exports above imports during the three months ending January 1, 1877, was greater than in any other three months in our history.

One feature of the exhibits is worth noticing as showing either a radical difference of type between the Occidental and the Oriental mind; or else, what is far more probable, the difference between the results of the imperfect, traditional, fossilized education of the great empires of Asia, and that education of Christian civilization which we enjoy. Close observers have remarked that while in the exhibits of the so-called Christian nations the displays of skill were largely *inventive*, that is, devising new combinations and appliances for increasing comfort or productiveness, the skill of Oriental nations, perhaps no less wonderful of its kind, showed itself to be but feebly inventive, being essentially and laboriously *imitative*—a reproducing of old ideas in innumerable forms of minute expertness in handicraft. Invention implies increase of power and growth of ideas and character. Mere imitation keeps a nation repeating itself for ages.

This tendency on our part to the invention of machines and appliances which confer on society new power, and to the bringing forward of new ideas which uplift whole communities into a higher stage of existence, and into broader fields of influence, may be largely attributed to the nature and the breadth of our popular education. If the common school of Europe and America did have but a scanty corner or two in the vast show, it was nevertheless represented as a leading factor in results, throughout all the broad displays of inventive genius which filled those great halls. But for the work which our present type of education has done and is doing, Machinery Hall, at least, would have been as silent as the grave.

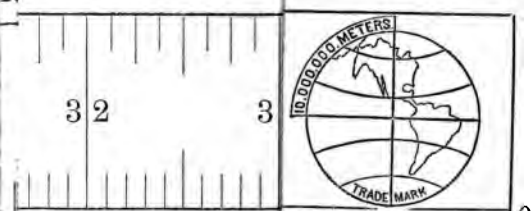
THE METRIC SYSTEM.

The Exposition has given a new illustration of the importance of teaching the metric system in American schools. It is generally taught in the schools of Europe, and appliances for illustrating the system, such as are ordinarily used in their schools, were found in most of the Foreign Educational exhibits. The most complete apparatus for illustrating the metric system, and the only one which received an "Award," was that shown in the Connecticut Educational exhibit, comprising a full set of rules and measures, linear, superficial, and cubic, with metric scales and weights. Our metric scales were in almost constant use, by the thousands weighing themselves by kilograms. Nearly all the textile fabrics exhibited at Philadelphia from the Continent of Europe, Mexico, and South America, were metrically measured, unless, in accommodation to our ignorance, the French measures were translated into English. The European journals, even as quoted in American papers, now use metrical terms in linear measurements. American scientific periodicals are adopting the same language. *Scribner's Monthly*, the *Galaxy*, and some other monthlies, now express quantities in metric terms as well as in their English equivalents. The metric system is already in use in the best laboratories of this country. The knowledge of it is now required for admission to all our leading Colleges, and ought to be a condition of admission to every High School in the country. Aside from the question of its early or ultimate adoption in the United States, and even were it certain, that it would never become the exclusive system here, it ought to be regarded as an essential part of a common school education and to hold a place in the course of study in every American school. Can one single half hour, or if so much time be needed, one half day be better used than in learning the metric system?

By the advance of civilization and by the closer relations and growing intercourse which commerce and international expositions are creating among all nations, the metric system is sure to become universal. Our youth should no longer be ignorant of this world-language, already in use by the great

NATIONAL EXHI

sept were each 192 Feet
wide. There were 4 Pa
ach 48 Feet, or 14.63 M



ONE METER.

10 Decimeters.

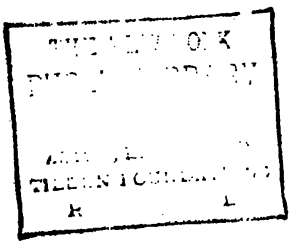
100 **Centimeters=39.37 in.**

1000 Millimeters.

APPROXIMATE

approximate equivalents
s about *three* feet *three* inch
rER is nearly four inches.
re nearly one rod.
rER is a little less than 20
a little more than a wine
U, or Metric ton, is about
M is about 2½ lbs.
nickel coin weighs 5 gram

Printed by
The Case, Lockwood and Brainard Co.
of Hartford, Conn.



majority of cultivated nations, and which, computing only by decimals, is the most simple and uniform. The teaching of this system in all our schools has been very generally recommended in Educational journals and State Teachers' Associations throughout the country.

METRICAL CHARTS AND MEASURES.

The metric tables are given in nearly every series of Arithmetics. But when only tables are used, the impression is vague and the figures are soon forgotten. The object itself always makes a clearer and more lasting impression than any verbal description of it. Hence to facilitate the introduction of the metric system into the schools of Connecticut, I have devised a variety of metric measures. These are made in large quantities, and sold for our schools, at the office of the Board of Education, precisely at their cost by the thousand, or about one half the retail price of common English rules.

I have long advocated the early training of the eye in measuring objects and distances, and therefore placing linear measures in the hands of pupils. As comparison facilitates both comprehension and memory, these rules, whether one foot, two feet, or more, should be metrically marked on one side or edge, and in inches, feet, or yards on the other. Neat foot rules thus marked are furnished at fifty dollars per thousand, or at five cents each. The linear measures are most used and most easily taught, and when once learned serve as a basis for the entire system. In some schools, already, every pupil is supplied with one of these cheap rules, which, though showing only decimeters, centimeters and millimeters, serves as an entering wedge for all the rest.

My thanks are due to Messrs. A. & T. W. Stanley, of New Britain, for permission to use their admirable Metric Diagram, which is inserted here in order that it may go into the hands of every teacher and every school of Connecticut. Giving in one comparative view, the exact relation of the inch, foot, and yard to the millimeter, centimeter, decimeter, and meter, it makes these new measures plain and simple even to young pupils. Besides this comparative view, it gives all the needful tables, the approximate equivalents and rules for the reduction from one system

to the other. The Centennial Buildings represented are measured metrically as well as in feet. The length of the Main Building, for example, is 1,880 feet or 573 meters, and Fairmont Park contains 3,000 acres or about 1,214 Hectares, of which 450 acres or about 182 Hectares, were appropriated to the Exhibition. This diagram, printed on stout bank paper, and neatly bound, I am permitted for a brief time to furnish to the teachers and schools of *Connecticut only*, at half price, or fifteen cents per copy.

"HARD NOMENCLATURE."

The new and hard terminology of the system is strongly condemned by some, as if meter itself—whether long, short, or peculiar, thermo-meter, or baro-meter were a strange Greek term. Still more are such words as millimeter, centimeter, and decimeter pronounced too difficult for little children. But the youngest child that can count our coin is familiar with dime or dec- and cent and mill, and with this familiar comparison he grasps the compound deci-meter, centi-meter, and milli-meter and at once understands their decimal relations. The great bugbear is the names of the Greek multiples deca-meter, hecto-meter, kilo-meter, and myria-meter. Though perhaps new to the pupil, these four prefixes are familiar to the scholar in such terms as decalogue, decade, decagon, decapod, hecatomb, chiliad, chiliagon, chiliarch, chiliasm, chiliast, myriad, myriapod, and the like. On the submultiples, the child cannot blunder after a brief explanation, and in the multiples only four prefixes are to be learned. Omitting at first the euphonic vowel or connective, let these four syllables, Dec, Hec, Kil, Myr,—Dec, Hec, Kil, Myr,—Dec, Hec, Kil, Myr, be repeated rapidly in concert by a whole class or school for five minutes and they are learned forever. The connecting vowels and the whole compounds may soon be fully mastered. The Greek and Latin numerals under ten enter so largely into the composition of English words that they ought to be learned by every pupil, aside from their use in metric terms.

For all weights we have only to apply the same prefixes to gram, a term already familiar as a measure of weight, and also in tele-gram and epi-gram. For superficial measurements the same prefixes are applied to Are—an abbreviation of the old

word area. The word stere is familiar in stereotype, stereoscope, stereograph, and some thirty other compounds. Tonneau is kindred to ton and is about thirty-five pounds less than our long ton. The only new word in the whole nomenclature of the metric system is liter, and even this word has long been used in litrameter. Instead of being "difficult," then, it is a model of simplicity. The use of the same prefixes for weights and for all measures linear, liquid, superficial, and cubic, greatly facilitates both its study and its use. Once properly taught with the various measures in hand, it will never be forgotten. Contrast with these few, exact and unvarying terms, the cumbrous, clumsy, variable, and really difficult nomenclature now in use, comprising lines, barleycorns, inches, nails, ells, quarts, quarters, quarterns, gallons, pecks, bushels, coombs, minims, noggins, kilderkins, firkins, barrels, butts, pipes, puncheons, tierces, hogsheads, scruples, carats, grains, drachms, pennyweights, hundredweights, and many others.

EARLY ADVOCATED IN AMERICA.

The importance of a standard at once invariable and universal has long been felt. President Madison said, "The great utility of a standard fixed in its nature and founded on the easy rule of decimal proportions, is sufficiently obvious." Jefferson desired to reduce "every branch to the same decimal ratio already established in coins, and thus bring the calculation of the principal affairs of life within the arithmetic of every man who can multiply and divide plain numbers."

John Quincy Adams says of the Metric System: "Considered merely as a labor-saving machine, it is a new power offered to man incomparably greater than that which he has acquired by the new agency which he has given to steam. It is in design, the greatest *invention* of human ingenuity since that of printing. It is one of those attempts to improve the condition of human kind, which, should it be destined ultimately to fail, would in its failure deserve little less admiration than in its success. If man be an improvable being, if that universal peace which was the object of a Saviour's mission, which is the desire of the philosopher, the longing of the philanthropist, the trembling hope of the Christian, is a blessing

to which the futurity of mortal man has a claim of more than mortal promise; if the Spirit of Evil is, before the final consummation of things, to be cast down from his dominion over men and bound in the chains of a thousand years—the foretaste here of man's eternal felicity; then this system of common instruments to accomplish all the changes of social and friendly commerce will furnish the links of sympathy between the inhabitants of the most friendly regions; the meter will surround the world in use as well as in multiplied extension; and one language of weights and measures will be spoken from the equator to the poles.

"The ounce, the drachm and the grain are specific names indefinitely applied as indefinite parts of an indefinite whole. The English pound Avoirdupois is heavier than the pound Troy, but the ounce Avoirdupois lighter than the ounce Troy. The weights and measures of the old system present the perpetual paradox of a whole not equal to all its parts. Even numbers lose the definite character essential to their nature. A dozen becomes sixteen, twenty-eight signifies twenty-five, one hundred and twelve mean a hundred. The indiscriminate application of the same generic term to different specific things and the misapplication of one specific term to another specific thing, universally pervade all the old systems and are the inexhaustible fountains of diversity, confusion and fraud."

Says F. A. P. Barnard, LL.D., President of Columbia College, "No cause, since the earliest organization of civilized society, has contributed more largely to embarrass business transactions among men, especially by interfering with the facility of commercial exchanges between different countries, or between different provinces, cities, or individual citizens of the same country, than the endless diversity of instrumentalities employed for the purpose of determining the *quantities* of exchangeable commodities. For the inconvenience and confusion resulting from this course, but one effectual remedy can possibly be suggested; and that is the general adoption, throughout the world, of one common system of weights and measures. Such a common system is offered to us in the Metric—a system, according to which the weight and dimensions of every material thing, whether solid, liquid, gaseous;

whether on land or on water, whether in the earth or in the heavens; and whether determined by the scale, plummet, balance, barometer, or thermometer, are ascertained by a method absolutely uniform, entirely simple, and equally suitable to the use of all mankind, resting upon a single invariable standard of linear measure, with multiples and sub-multiples like those of our monetary system, exclusively decimal, with appropriate names, similar in all languages, and itself secure against the possibility of change or loss through carelessness, or accident or design, by being constructed on scientific principles, and copied for distribution among the different nations of the world."

Charles Sumner says: "The rising generation will embrace it, and ever afterward number it among the choicest possessions of an advanced civilization. A system of weights and measures born of philosophy rather than of chance, is what we now seek. To this end old systems must be abandoned. A chance system cannot be universal. Science is universal. Therefore, what is produced by science may find a home everywhere. The metric terms are equally intelligible in all languages. They are in their nature common or cosmopolitan, and in all countries the name instantly suggests the measure with exquisite precision."

LATER PROGRESS.

The old systems were as various as the nations that used them. If the standard had always been the length of the foot of their several kings, the variety would hardly have been greater. More than one hundred foot measures, each differing from all the rest, have been in use in Europe. At the beginning of the present century, the foot had not less than sixty values in Europe. There is great encouragement in the progress already made towards uniformity. At the International Exposition in Paris in 1867, where the measures of all the world were compared, only eight of this discordant class survived. The last decade has witnessed still greater progress in this direction. The Metric System is now adopted by the Swiss, Swedes, Spaniards, Germans, Austrians, Italians, Portuguese, Dutch, Danes, Belgians, Greeks, Mexicans, Brazilians, and by most of the South American States, and in British India, and in the majority of these

nations its use is compulsory. Sweden has postponed the date of its obligatory use till 1889, in order that the people may have time for its voluntary introduction, and thus all actual compulsion be avoided. But the intelligent mechanics and manufacturers of Sweden are already so rapidly introducing the metric measures, that they are likely to be in general use there within three or four years. This System was legalized in Germany in 1868, and after only four years of preparation its use was made compulsory. The Educational Department issued pamphlets showing its advantages and explaining the metric values. It is due to the influence of the schools of Germany that the people were so soon prepared for the appreciation and reception of the metric system.

It is strange that our country, which has cut loose from so many bondages of mediæval or modern precedent, should be distanced by so long a list of nations, and even by the weaker republics of our own continent, in the establishment of the Metric System. It is strange that a nation which in 1776 commenced a career of progressive policy which led soon afterwards to the construction and adoption of an admirable decimal system of coinage, should not at that time have adopted a decimal system of weights and measures, as Jefferson desired; but it is yet more inexplicable that at the great Centennial Exposition of 1876, the antiquated system should be found still prevailing, in unpleasant contrast with the admirable scale by which the French, German, and other European nations measured and weighed their goods. Had the advice of Jefferson been heeded, the Metric System might easily and naturally have been introduced here in connection with our decimal currency. Had it been generally taught in our schools fifty or even twenty years ago, the main objections to its use would no longer be heard. If, like Germany, we now prepare the way for it through the vast and effective machinery of our schools, it will, at no distant day, supplant our present system-less system, and leave it shelved in cyclopedias, with the other curiosities of the feudal ages, where it belongs.

IF PROPERLY TAUGHT, EASILY LEARNED.

Mr. Joseph Hall, the Principal of the Hartford High School, whose large observation and experience add weight to his opinion, writes me as follows:

"It seems strange to me that any one can fail to see the necessity of teaching and learning the Metric System, to which we are undoubtedly coming in the near future, and which is already in use in nearly all the laboratories in the country. *I hold that any person of ordinary intelligence ought to master the subject in twenty minutes, if it is properly presented.*"

Many teachers inform me that they find from thirty minutes to two hours ample time for ordinary pupils in our common schools to master this subject. Already familiar with the decimal system, they have only to apply a dozen words to decimal measurements. American teachers of wide experience concur in the opinion that the exclusion of all the rules, processes, and problems connected with compound numbers by the general adoption of the Metric System would save at least one year in the school life of every pupil. To the children of England who must be trained in pounds, shillings, pence and farthings, the gain would be far greater.

PROGRESS IN ENGLAND.

At a convention of the friends of the Metric System, held in the Lord Mayor's mansion, London, which I attended in 1871, facts and statements were presented which indicated great progress of public sentiment in that country, and cautious and conservative as the English people are, promised its adoption within the next decade. The discussions then progressing in Parliament seemed to me to assure the same result. Its use was legalized in 1864 so far as relates to contracts. As early as 1862 the Weights and Measures' Committee unanimously recommended that "the use of the Metric System be rendered legal. No compulsory measures should be resorted to until they are sanctioned by the general conviction of the public. That the government should sanction the use of the Metric System (together with our present one) in levying the custom duties, thus familiarizing it among our merchants and manufacturers and giving facilities to foreign

traders in their dealings with this country. The Metric System should form one of the subjects in the competitive examination of the Civil Service. The gram should be used as a weight for foreign letters and books at the Post Office. The Metric System should be taught in all schools receiving grants of public money. In all government reports and statistics, quantities should be expressed in terms of the Metric System, in juxtaposition with those of our own." These recommendations were partially adopted in 1864. Four years later the Standards' Commission, G. B. Airy (Astronomer Royal) Chairman, and H. W. Chrisholm (Warden of the Standards), Secretary, say: "Considering the extent and importance of our commercial and scientific intercourse with so many nations who have adopted the Metric System, and that it has now become a widely extended international system, this country can no longer isolate herself from other countries by refusing to adopt that common method of computing the quantities of all merchandise and other articles passing between them, which so many other nations have already accepted. Considering the great increase during late years of international communication and the general adoption of the Metric System in Europe, and other parts of the world, the progress of public opinion in this country in its favor, and its increasing use in scientific researches, in the practice of accurate chemistry and engineering construction, considering the advantage of adopting uniform names for an international system of weights and measures, the French nomenclature as well as the decimal scale of the Metric System should be introduced in this country, and mural standards of the Metric System should be exhibited in public places. Considering that the Metric System includes the relation of coinage to weights and measures, particularly in its uniform decimal scale, and that its advantages would be much increased by establishing a corresponding international system of coinage, in regard to a unit and a decimal scale, we are of the opinion that, even if the difficulties of establishing an international unit of coinage cannot be at present overcome, *yet the decimation of our system of coinage which is in the power of the Government, would be very useful to the public.*" This recommendation of the decimation of the English

system of coinage is the more remarkable when it is remembered that Sir Thomas Graham (master of the mint), and H. W. Miller (of the Bank of England) were members of this Commission. These recommendations met the general approval of the educated classes of England. The bill for the compulsory use of the Metric System introduced into Parliament in 1871 was "supported by forty-three Associated Chambers of Commerce and Agriculture, by Farmers' Clubs, Workingmen Associations, and many scientific bodies, and by the representatives of the largest constituencies of the kingdom, Manchester, Liverpool, Glasgow, Leeds, Birmingham, and many others. Observing carefully the tone of the English press and the discussions of Parliament on this subject, and conferring with members of School Boards and members of Parliament, I was convinced that the educated classes regard its adoption in England as only a question of time. The government did not oppose the bill on its merits, but solely on the ground that further time was needed to perfect the bill and prepare the people to appreciate and apply its provisions. Mr. Chichester Fortescue, President of the Board of Trade, said in Parliament: "The general feeling of this country is not *at present* such as would justify *the compulsory* introduction of the Metric System. It will be better to postpone its consideration and leave it to the government to introduce a complete system next session." Notwithstanding this request for postponement with the implied promise of the ministry to favor the system at a later day, the bill was pushed to an immediate decision, and was defeated by a majority of only five votes. Their unexpected strength at this defeat, if not a virtual victory, gave the friends of the measure confidence of success in a future trial, and stimulated them to new efforts in educating and preparing the people for the reception of the Metric System. It was in this view that Sir Charles Reed, President of the London School Board (whom Yale College at her last Commencement honored with the degree of LL.D.) expressed special interest in the various appliances for teaching and illustrating the Metric System shown in the Connecticut Educational Exhibit.

GERMAN EXPERIENCE.

Many who admit the great advantages of the Metric System regard the difficulties in the way of its introduction as insuperable. The recent experience of Germany, which fully adopted the system in 1872, refutes their objections. In 1871, I found the schools of Germany earnestly enlisted in the work of preparing the people for this transition. The subject was first thoroughly taught in their Normal Schools and Teachers' Institutes. A "schulmeter" and other metric measures and weights and a metric chart were in general use in the schools which I visited in various part of Germany. The old German maxim, "whatever you would have appear in a nation's life, that should be put into its schools," was successfully applied to the Metric System. With their ample appliances for illustration, it was easily mastered in all their schools. The teachers said one or two hours were sufficient for ordinary pupils to learn the system when the measures and charts were in hand and properly explained. The experience of Germany clearly shows that it rests with our teachers and schools to prepare the people of this country for the adoption of the Metric System. Once taught to the children with metric measures in their hands, parents will learn it from them, and the whole people soon be able to understand, appreciate and use it.

Though exulting over France, and excessively elated by her military triumph, Germany had the sagacity and courage to adopt this system from the country she had conquered. As an instructive lesson to us, I fully endorse the following remarks of Mr. J. P. Putnam, who also made "careful observations on the spot of the manner in which the new system was received in Germany at the time of its general introduction to the exclusion of all others, especially by the mechanics, manufacturers and builders and all who make immediate practical use of the weights and measures. The new system was first received by the public in very different ways. Some were indifferent; others considered it an unnecessary innovation, from which a thousand disadvantages to trade and manufacturers would result; others, and by far the greatest number, composed of the most intelligent of the people, looked upon the reform as a necessary result of the general advance of civilization, from which the greatest bless-

ings were to be derived in the end, and zealously applied themselves to secure its numerous advantages as early as possible. In a very short time, however, as the beauty and simplicity of the new system began to be generally understood, those belonging to the first two classes rapidly diminished in number, until finally few grumblers were left. The sturdiest antagonist to innovation, prompted at first by a kind of patriotic feeling of allegiance to what was established, handed down from their fathers, and inculcated by education, began to yield to the general advance of the times, and to see that to reject the new system solely on the ground of its novelty was to attempt to arrest the progress of civilization itself. The practical difficulties to making the change were represented as far more formidable than they proved to be in execution, when a simultaneous effort was made throughout the country. Thus it was objected that the lumbermen, the hardware, the brick and other manufacturers, who worked to feet and inches, would greatly suffer. Experience showed, however, that this fear was greatly exaggerated. Every man had only his small share of the reform to sustain, and each was aided by his neighbor, so that everything went on with astonishing smoothness and ease, and the manufacturers soon began to appreciate the advantages of a system which so greatly facilitated all their calculations and advanced the interests of commerce both foreign and domestic. In some cases the gauges were slightly altered to suit the new measures, and in others the old forms were retained, where the new metric values could be applied to them without the inconvenience of retaining too small fractions. In many cases it was found that instead of the expected inconvenience, a great convenience was experienced from the change at the outset. In the case of the brick manufacturer, for example, great annoyance was anticipated, because the three dimensions were expected to measure even inches. The result, however, proved to be exactly the reverse to architects and builders, the importance of which can scarcely be overestimated. Previous to the reform in the different German States, the dimensions of bricks varied as much as the different systems of measures themselves. The result was an inconvenience, the extent of which only the practical architect and builder can realize. Immediately upon

the introduction of the Metric System, every brick-yard in Germany was obliged to shape its bricks after a uniform pattern, to the immense relief of the consumers. 6 cm. (centimeters) × 12 cm. × 24 cm. (25 cm. mortar included) is now the universal measure of bricks in Germany. The same difficulty overcome by the Germans still holds us in bondage. No two brick yards turn out the same sized bricks, and accuracy in the estimate of cost and artistic effect is impossible, even at the expense of infinite labor. Good fortune permitting, we shall be relieved of this inconvenience and adopt, it is to be hoped, for the sake of uniformity, the same figures for our bricks just adopted by the Germans. What difficulties will be encountered at first in our home manufactures will be offset by convenience in our imports and exports, where we deal with countries using the Metric System."

ORIGIN OF THE SYSTEM.

"The proposition for the creation of a Metric System originated in 1790 with Prince Talleyrand, then Bishop of Autun. He recommended the length of the pendulum beating seconds in latitude 45° as a suitable linear basis, and introduced into the National Assembly of France a decree embodying this proposition, and providing for a scientific determination of the exact length of this pendulum by a commission composed in equal numbers of members of the French Academy of Sciences and of the Royal Society of London. In subsequent proceedings, Spain, Italy, Netherlands, Switzerland, Denmark and Sweden participated by sending delegates to an international commission. The system itself was, however, matured by the labors of a committee of the Academy of Sciences embracing five of the ablest mathematicians of Europe, including Laplace. Their report, after considering the comparative fitness, as a standard of length, of the pendulum and of the earth itself in some one of its natural dimensions, decided in favor of the latter, and recommended as the standard unit of linear measure, one ten-millionth of the quadrant of a terrestrial meridian. This report was approved by the Assembly. Committees of the Academy were then charged with the duty of making the necessary determinations of the standard units, including those

of capacity and weight as well as that of length. An arc of the meridian passing through Paris, and extending from Dunkirk to Barcelona was measured trigonometrically by Delambre and Méchain, an operation of immense labor which occupied seven years, the object being to ascertain with the greatest exactness the length of the linear base, called the meter. It was resolved to make the unit of volume equal to the capacity of a cubical vessel measuring one-tenth of a meter on its edges; and the standard of weight, the actual weight of distilled water which should fill such a vessel at the temperature of maximum density. The weight of a given volume of water under these conditions was, therefore, made a subject of elaborate investigation by a committee of the Academy, and in conformity with the results obtained, the standard unit of weight, called the gram, was fixed at one one-thousandth part of the standard weight above mentioned, which being one thousand grams in weight is called the kilogram. The standard meter, a simple bar of platinum, which represents the linear base of the system, and the standard kilogram, a simple cylinder, also of platinum, which represents the unit of metric weights, are deposited in the Palace of the Archives in Paris.

The question has been somewhat discussed whether the prototype meter of the Archives is really, with great severity of exactness, one ten-millionth part of the quadrant of a terrestrial meridian. This question complicates itself with the further question, what is the true figure of the earth? There is no doubt at all of the accuracy of the measurement made by the French geodesists; but they measured only about ten degrees of the Paris meridian, and from this measurement deduced the length of the entire quadrant of ninety degrees by calculation, on the supposition that the earth is a regular spheroid having an ellipticity of $\frac{1}{3}\frac{1}{0}$th. The investigations of Gen. T. F. De Shubert, of the Russian army, and of Capt. A. R. Clark, of the British Ordinance Survey, have made it probable that the earth is an ellipsoid of three unequal axes, rather than a spheroid, and that the meridian passing through Paris is a trifle longer than the French computers supposed. If this is so —a thing which must yet be regarded as doubtful—the prototype meter of the archives is by a very minute portion (hardly

more than one two-hundredth of an inch) less than $\frac{1}{10,000,000}$ of the Paris meridian quadrant. On the other hand, it is, on the same supposition, with almost mathematical exactness the $\frac{1}{10,000,000}$ part of the meridian quadrant passing through New York city.

These discussions and the desirability of settling all doubts as to the stability of the system and the permanency of its unit bases, as well as of providing authenticated copies of the prototype standard to be distributed to the governments of all metric nations and of securing such standards against the danger of alterations in all coming time, led to the assembling at Paris in the year 1870 of an international commission to consider and adjust all questions connected with this subject. In this commission, thirty independent powers were represented. The deliberations of the commissions, interrupted by the war of that year between France and Germany, were subsequently resumed, and resulted at length in an international convention providing for the maintenance at Paris of an International Bureau of weights and measures, to be supported by *pro rata* contributions from all the signatory powers, and charged with the care of the prototype standards, and with the duty of constructing and verifying copies of those standards, not only for the powers interested but for other governments, or even for corporations and individuals who should apply for them and should be willing to pay the expense attending their construction and comparison. This convention was signed in March, 1874, the diplomatic representative of the United States, Mr. Washburne, being by direction of the President, one of the signers. It was resolved by this commission that the prototype meter and the prototype kilogram at the Archives shall be recognized and perpetuated forever as the true bases of the system, without regard to any doubtful questions as to the exactness of their correspondence with their theoretic values."
—*F. A. P. Barnard.*

For the convenience of teachers and scholars, and to show its great simplicity, the whole metric system is here presented on a single page.

MONEY.

10 mills ..... make a cent.
10 cents ..... make a dime.
10 dimes ..... make a dollar.
10 dollars ..... make an eagle.

LENGTH.

10 milli-meters ..... make a centimeter.
10 centi-meters ..... make a decimeter.
10 deci-meters ..... make a meter.
10 meters ..... make a dekameter.
10 deka-meters ..... make a hectometer.
10 hecto-meters ..... make a kilometer.
10 kilo-meters ..... make a myriameter.

WEIGHTS.

10 milli-grams ..... make a centigram.
10 centi-grams ..... make a decigram.
10 deci-grams ..... make a gram.
10 grams ..... make a dekagram.
10 deka-grams ..... make a hectogram.
10 hecto-grams ..... make a kilogram.
10 kilo-grams ..... make a myriagram

CAPACITY.

10 milli-liters ..... make a centiliter.
10 centi-liters ..... make a deciliter.
10 deci-liters ..... make a liter.
10 liters ..... make a dekaliter.
10 deka-liters ..... make a hectoliter.

THE SQUARE AND CUBIC MEASURES

are nothing more than the squares and cubes of the measures of length. The *are* and *stere* are other names for the square deka-meter and the cubic meter.

"In this brief space you behold the whole Metric System of Weights and Measures. What a contrast to the anterior confusion! A boy at school can master the Metric System in an afternoon. Months, if not years, are required to store away the perplexities, incongruities and inconsistences of the existing weights and measures, and then memory must often fail in reproducing them. The mystery of compound arithmetic is essential in the calculations which they require. All this is done away by the decimal progression, so that the first four rules of arithmetic are ample for the pupil."

CHARLES SUMNER.

The following table gives the metric measures legalized* in the United States, with the abbreviations and their equivalents now in use.

MEASURES OF LENGTH.

Metric Denominations.	Abbreviations.	Values.	Equivalents legalized by Congress in denominations now in use.
Myriameter	Mm.	10,000 m.	6.2137 miles.
Kilometer	Km.	1,000 m.	0.62137 "
Hectometer	Hm.	100 m.	or 3280 ft. 10 in. 328 ft. 1 in.
Dekameter	Dm.	10 m.	393.7 "
Meter	m.	1 m.	39.37 "
Decimeter	dm.	.1 m.	3.937 "
Centimeter	cm.	.01 m.	0.3937 "
Millimeter	mm.	.001 m.	0.03937 "

MEASURES OF SURFACE.

Metric Denominations.	Abbreviations.	Values.	Equivalents legalized by Congress in denominations now in use.
Hectare	Ha.	10,000 sq. m.	2.471 acres.
Are	a.	100 sq. m.	119.6 sq. yds.
Centare	ca.	1 sq. m.	1550 sq. in.

* The following Act was passed in 1866:

SEC. 1. *Be it enacted by the Senate and House of Representatives of the United States in Congress assembled*, That from and after the passage of this act it shall be lawful throughout the United States of America to employ the weights and measures of the metric system, and no contract or dealing, or pleading in any court, shall be deemed invalid or liable to objection because the weights or measures expressed or referred to therein are weights or measures of the metric system.

SEC. 2. *And be it further enacted*, The the tables in the schedule hereto annexed shall be recognized in the construction of contracts, and in all legal proceedings, as establishing, in terms of the weights and measures now in use in the United States, the equivalents of the weights and measures expressed therein in terms of the metric system; and said tables may be lawfully used for computing, determining, and expressing in customary weights and measures the weights and measures of the metric system.

MEASURES OF CAPACITY.

Metric Names.	Abbreviations.	No. of Liters.	Dry Measure.	Liquid or Wine Measure.
Kiloliter or Stere	Kl. st.	1000	1.308 cu. yds.	264.17 gals.
Hectoliter	Hl.	100	2 bu. 3.35 pks.	26.417 "
Dekaliter	Dl.	10	9.08 qts.	2.6417 "
Liter	l.	1	0.098 qt.	1.0567 qts.
Deciliter	dl.	.1	6.1022 cu. in.	0.845 gill.
Centiliter	cl.	.01	0.6102 " "	0.338 fid. oz.
Milliliter	ml.	.001	0.061 " "	0.27 fid. dr.

WEIGHTS.

Metric Denominations and Values.			Weight of what quanity of Water at maxium.	Equivalent in denominations now in use. Avoirdupois weight.
Names.	Abbreviations.	No. of Grams.		
Millier or Tonneau	M. or T.	1,000,000	1 cu. meter.	2204.6 lbs.
Quintal	Q.	100,000	1 hectoliter.	220.46 "
Myriagram	Mg.	10,000	10 liters.	22.046 "
Kilogram or Kilo	Kg.	1,000	1 liter.	2.2046 "
Hectogram	Hg.	100	1 deciliter.	3.5274 oz.
Dekagram	Dg.	10	10 cu. centim.	0.3527 "
Gram	g.	1	1 " "	15.432 grs.
Decigram	dg.	.1	.1 " "	1.5432 "
Centigram	cg.	.01	10 cu. millim.	0.1543 "
Milligram	mg.	.001	1 " "	0.0154 "

The following illustration of the advantages of the decimal system is given by Mr. J. P. PUTNAM:

ADVANTAGES OF DECIMAL DENOMINATIONS.

Our Federal currency shows us the advantages of the decimal system, in the facility and rapidity with which we make reductions and calculate values. We should consider our

burden intolerable if, instead of this simple table, we were obliged to use three or four complicated ones, all different from each other, like our three different tables for measuring weight; one, for instance, like the English pounds, shillings and pence, for buying medicine; another, different from the first, for buying our groceries; and a third, different from either, and perhaps containing vulgar fractions for greater variety, for buying our jewelry and other ornaments.

Our engineers feel so deeply the importance of the decimal subdivision, that, notwithstanding the inconvenience of completing our system, they have adopted the decimal subdivision of the above.

There are other advantages under this head, especially important to architects, engineers, mechanics, and contractors. Such as the greater convenience in measuring off the full size from small drawings which vary now between the inconvenient quantities of $\frac{1}{32}$ in., $\frac{1}{30}$ in., $\frac{1}{16}$ in., $\frac{1}{8}$ in., $\frac{1}{2}$ in., $\frac{3}{4}$ in., 1 in., $1\frac{1}{2}$ in., 3 in., etc., to the foot; so that in measuring off the full size a considerable diversity of multiples must be used. With the decimal system nothing would be easier than the reading off of the full size from the scale drawings, 1.50 representing either the full size of 1 m. 50 c. or 1 decim. 50 mm., or 1 c. 5 mm., according to the scale of the drawing expressed upon it, the mere alteration of the position of the decimal point giving the desired full size on the scale dimensions.

Then the decimal subdivision leaves less chance of error from the misreading of figures. Every architect has, for example, experienced the liability to mistake in reading 1′ 5″ as 15″ instead of 17″.

Problems to show the relative facilities of reduction by the old and new systems.

EXAMPLE, METRIC SYSTEM.

Problem.—Reduce 1543514 centimeters to Kilometers, Hectometers, etc.

OPERATION.

15.435.14. cm.=1.543514 Myriameters, or 1 Mm., 5 Km., 4 Hm., 3 Dm., 5 m., 1 dm., 4 cm. *Ans.*

Problem.—Reduce 1543514 inches to miles, furlongs, etc.

OPERATION BY OLD SYSTEM.

12) 1543514 in.
3) 128626 ft. + 2 in.
$5\frac{1}{2}=\frac{11}{2}$) 42875 yds. + 1 ft.
2
11) 85750 halves of yd.
40) 7795 r. + $\frac{1}{2}$ yds. = 2 yds., 1 ft., 6 in.
8) 194 f. + 35 r.
24 m. + 2 f.
24 m., 2 f., 35 r., 2 yds., 1 ft., 2 in.
1 ft., 6 in.

27 m., 2 f., 35 r., 2 yds., 2 ft., 8 in. *Ans.*

ALL MEASURES COMMENSURABLE.

This is an enormous advantage, for if the weight of a body is given we can know easily its volume and reciprocally. In our present system there exists no such relation between the weights and measures. As a result of this relationship in the Metric System, the unit of weight is easily obtained and becomes as unalterable as the unit of length, the gram or unit of weight being the weight of a cubic centimeter of distilled water at 4° Centigrade. A cubic meter of water weighs a ton or 1,000 kilogs. In ship-building it is a special advantage to have a unit which bears an exact proportion to a ton of water; a ton contains 35.955 cubic feet, and the only way to get rid of the long decimal fraction is *to add salt to the water until thirty-five cubic feet weigh exactly a ton*, an operation sufficiently difficult to perform successfully when the ocean is the object to be operated upon.

Problems to show the relative facilities of calculation by the old and new systems.

Problem.—What is the weight of 257 cubic meters, 200 cubic decimeters, 100 cubic centimeters, and 700 cubic millimeters of cannel coal? Given, specific gravity of cannel coal 1.27.

OPERATION BY METRIC SYSTEM.

257.217 cu. m. = 257,002,001.7 cu. cm.
1 cu. cm. of water weighs 1 gr. × 1.27 = 1.27 = weight of 1 cu. cm. cannel coal.

257002001.7
1.27
17990140119
5140040034
2570020017

Ans. 326392542.159 grams, or
32639 Mg., 2 Kg., 5 Hg., 4 Dg., 2 g., 1 dg., 5 cg., 9 mg.

EXAMPLE, OLD SYSTEM.

(257.217 cu. meters=2 cu. rods, 3 cu. yds., 18 cu. ft., 40 cu. in.)

Problem.—What is the weight of 2 cubic rods, 3 cubic yards, 18 cubic feet, and 40 cubic inches of cannel coal? Given, specific gravity of cannel coal 1.27, and supposed weight of 1 cubic inch of water about 252.7453 + grains.

By the old system it is impossible to solve the problem accurately.

OPERATION.

2 cu. rods, 3 cu. yds., 18 cu. ft., 40 cu. inches.

2

$166\frac{2}{3}$

2 cu. rods=$332\frac{2}{3}$ cu. yds.

3

$335\frac{1}{3}$

27

2345

670

$20\frac{1}{2}$

$335\frac{1}{3}$ cu. yds.=$9065\frac{1}{2}$ cu. ft.

18

$9083\frac{1}{2}$

1728

72664

18166

63581

9083

432

$9083\frac{1}{2}$ cu. ft.=15695856 cu. in.

40

15695896 cu. in.=2 cu. rods, 3 cu. yds., 18 cu. ft, 40 cu. in.

$5\frac{1}{2}=\frac{11}{2}\times\frac{11}{2}\times\frac{11}{2}=\frac{1331}{8}=166\frac{3}{8}$.

The U. S. Bureau of Weights and Measures have accepted (though it is incorrect) the weight of 1 cu. inch of water

=252.7453 grs.

1.27

17692171

5054906

2527453

320.986531=grs. weight of 1 cu. in. cannel coal.

320.986

94175376

125567168

141263064

31391792

47087688

7000) 5038162873.457 grs.

25) 719737 lbs., 3873.457 grs.

4) 28789 qrs., 12 lbs.

20) 7197 cwt., 1 qr.

359 T., 17 cwt.

7000 grs. Troy=1 lb. Avoirdupois

3873.457 grs. Troy=$\frac{3873.457}{7000}$ lbs. Avoirdupois.

$\frac{3873.457}{7000}\times 16=\frac{7746.914}{875}$ oz.

875) 7746.914 (8.853 + oz.

7000

7469

7000

4691

4375

3164

16

5118

853

13.648 + drams.

Ans. 359 T., 17 cwt., 1 qr., 12 lbs., 8 oz., 13.648 drs.

In the second operation 380 figures are required, in the first only 87. In the second, *fifteen* different mathematical operations have to be performed, in the first only *two*. This is but a fair comparison of the two systems.

A LABOR SAVING MACHINE.

The problems given on the last three pages show in striking contrast the facilities of the old and new methods. Some years ago circulars were sent to the leading teachers of England, by the International Decimal Association, asking their opinion of the value of the Metric System considered merely as a labor saving machine. The report of this Commission of teachers was given at the Metric Convention in London previously mentioned. The general opinion was that the full adoption of this system and the exclusion of their cumbrous coinage would save £350,000 ($1,750,000) in annual school expenses and two years of the school life of every child in the English schools. Familiar as American youth are with our decimal currency, they would thus gain not more than half this time. Professor Leone Levi, of London, Secretary of the Metric Department of the British Association for the Advancement of Science, in illustration of the economic bearings of the subject, says, that the adoption of the Metric System would save the London & Northwestern Railway ten thousand pounds, or fifty thousand dollars, and the National Government five hundred thousand pounds, or two and a half millions of dollars, in addition to the school gain above mentioned. Competent authorities in this country, affirm that "millions of dollars would be saved annually in dealing with the nations using this system, besides the greater saving to ourselves in the daily business of the country."

The use of the Metric System in the computation of customs-duties would greatly facilitate commercial interchange and relieve an army of clerks in the custom-houses of the United States, who are now employed in reducing the weights and measures of one country to those of another. As the larger portion of our imports are both purchased and invoiced metrically, this change would secure greater promptness and accuracy and prevent endless confusion and trouble,

and stop the source of fraud and imposition arising from the reduction of diverse and complex systems.

Formerly the tendency has been to the isolation of races and the antagonism of nations. But commerce is now confederating peoples the most distant and diverse. Midway between the leading empires of Europe and Asia, this country is already the commercial center of the nations, and is to be still more the great highway of trade for the world. The exigences of business and commerce, therefore, will ere long demand the general adoption of this world language now common to nearly all civilized countries and sure to open new channels of communication among the nations. Such a consummation will be an achievement worthy to mark the advanced civilization of this century.

METRIC POSTAGE.

A knowledge of the Metric System is a matter of pecuniary interest to all who are doing large business through the mails. The fact ought to be everywhere known that the United States Government has adopted a metric basis of postage. Certainly the law now discriminates in favor of the Metric System and requires postmasters to take fifteen grams as the equivalent of one-half ounce. The following is the provision of the Revised Statutes of the United States (chapter 3, section 3880): "The Postmaster-General shall furnish to the post offices exchanging mails with foreign countries, and to such other offices as he may deem expedient, postal balances denominated in grams of the Metric System, fifteen grams of which shall be the equivalent for postal purposes, of one-half ounce avoirdupois, and *so on in progression.*" The last provision, "and so on in progression," is meant to include all multiples of the fifteen grams, or all higher weights of letter postage. As fifteen grams are fifty-three one-hundredths of an ounce, there may be a saving of six per cent. by all who use the metric letter scales. When this law is generally understood every business house and every person having extensive correspondence "will insist that his own post-office take advantage of its provisions, thus reducing his postage six per cent. This difference in weight is often enough to save an extra stamp, and each year's saving on a large mail would be an item worthy of the attention of any

business man." The Post Office Department has already furnished metric balances to Hartford, New Haven, New York, Boston, Chicago, Washington, Philadelphia, Baltimore, Cleveland, Buffalo, Annapolis, Waltham, Corpus Christi, Petersburg, St. Louis, San Francisco, Pottsville, Georgetown, etc., and has a large number on hand awaiting requests from offices desiring them.

The International Postal Union, ratified by treaty at Berne, in October, 1874, includes twenty-one nations, and expresses its rates entirely in the Metric System. In this Union the United States is one of the contracting parties.

SCIENTIFIC MEN USE IT.

Scientific investigators and writers almost unanimously favor and use the Metric System. One of the objects of the American Metrological Society, as given in its constitution, illustrates the broad application of this system. "A further object will be to secure the universal adoption of common units of measure for the expression of quantities which require to be stated in presenting the results of physical observation or investigation, and for which the ordinary systems of metrology do not provide; such as the divisions of the barometer, thermometer and densimeter; the amount of work done by machines; the amount of mechanical energy, active or potential, of bodies, as dependent on their motion or position; the quantities of heat present in bodies at given temperatures, or generated by combustion or otherwise; the quantity and intensity of electro-dynamic currents; the aggregate and the efficient power of prime movers; the accelerative force of gravity; the pressure of steam and of the atmosphere; and other matters analogous to these. The Association will endeavor also to secure uniformity of usage in regard to standard *points of reference*, or to those physical conditions to which observations must be reduced for purposes of comparison; especially the temperature and pressure to which are referred the specific gravities of bodies, and the zero of longitude on the earth."

The Metric System has been adopted by the International Statistical Congress and by the International Social Science Association. It is exclusively used in the United States Mint

and in the United States Coast Survey. Seventy square miles around New Haven, for example, have been carefully surveyed during the last five years under the direction of the Coast Survey. The results of these triangulations are metrically expressed.

"The Metric Memorial" lately presented to Congress has over eleven hundred signatures from twenty different States, and these names are among the most prominent and influential of those States, embracing the faculties of colleges, professional schools, and the leading educators of the country. In this list were included engineers, architects and leading manufacturers, men whose daily occupations show the importance of exact measurements, also eminent bankers, merchants and capitalists. "The signatures of a single city, belonging to the latter class, represent an aggregate of more than a hundred millions of dollars. It will thus be seen that among the signers of the memorial are represented largely both the intelligence and wealth of the country."

The Boston Society of Civil Engineers recommends "that upon every plan that has its scale shown by a graduated line indicating feet, miles, etc., a second line should be drawn as a scale of meters. This requires very little additional labor, does not injure the plan for present use and may enhance its future value, shows what is now the lawful standard of the United States and how long the meter is compared with the foot, and it gives the draughtsman his first lesson as to the difficulties that lie in the way of the Metric System. This practice can perfectly well be adopted by a very few persons, or even by a single individual unsupported by the rest of the community." Many of our leading architects, builders, and civil engineers now use Metric Measures in their estimates, plans, and surveys. At the Centennial Exhibition were shown large drawings of the Hoosac Tunnel in feet and meters, Salisbury car-wheels, metrically guaged for South American and East Indian railways, the standards of the United States Coast Survey and their elaborate metric surveys and maps and various metric charts and diagrams. The terms of the Metric System are employed in class-room instruction in several colleges and nearly all laboratories, in instruction in civil engineering and in field practice.

Hon. Yung Wing, with his usual foresight and appreciation of the future needs and demands of China, has placed our Metric diagrams, charts, and rules in the hands of all the Chinese students in this country. Therefore on their return to their native land they will be prepared to teach and use the Metric System.

An association of scientific gentlemen, college professors, and prominent teachers, called the "Metric Bureau," has been formed in Boston. This is not a money-making concern. On the other hand, one of the privileges of membership is that of paying an annual assessment of five dollars. Any one may become an honorary member by the payment of twenty-five dollars, or a life member by the payment of fifty dollars. One of the by-laws is, that "no officer shall receive from its funds any compensation for his official services." One of the members has sent, at his own expense, 8,000 printed tables of the Metric System—one to each periodical in the country. The fact that Rev. F. A. P. Barnard, LL.D., is President of the Association, and that among its officers are such men as Hon. Charles Francis Adams, Professor H. P. Bowditch, and Nathan Appleton, indicates the disinterested and public-spirited aim of the Association. The constitution says:

"The object of this Bureau shall be to disseminate information concerning the Metric System; to urge its early adoption; and to bring about actual introductions wherever practicable. To this end, it will secure the delivery of addresses; publish articles, circulate books, pamphlets, and charts; distribute scales and measures; introduce the practical teaching of the system in schools; and in all proper ways, as far as the means at its disposal will allow, the Bureau will urge the matter upon the attention of the American people, till they shall join the rest of the world in the exclusive use of the International Decimal Weights and Measures."

METRICS AND MANUFACTURING.

The most serious objection urged against the adoption of the Metric System is, that it would necessitate the changing of "all drawings, patterns, taps, dies, reamers, mandrels, scale-beams, tools, &c." But this change should not be immediate or violent. The new should gradually supplant the old. As the

present tools and implements are worn out, those made on a better scale might take their place. This is the plan already adopted in many manufacturing establishments. The Waltham Watch Factory, for example, now adopts the Metric System for all new tools and new machines, and their watches are now made in metric dimensions. Their grand exhibit of watches at Philadelphia has already created a demand in other lands, while the fact that in all their depositories are kept metric duplicates or multiplicates of every wheel and pivot of their watches, ready at trifling cost to take the place of any broken or disabled part, adds much to their market value abroad. The extent of this change is shown by the fact that this company now employs nine hundred hands and makes about three hundred watches a day. Soon no other measures will be used in their factories and machine shops, and their computations, drawings, and tools will be only Metric.

Though the new system is not to be enforced in Sweden for a full decade, many Swedish manufacturers, as a matter of business interest and profit, long since adopted Metric Measures. Nearly four years ago, the celebrated Motala Iron Works in Sweden adopted the Metric System exclusively for all locomotive work. One factory in New Jersey is using the Metric System exclusively.

The Centennial Exposition has created a new necessity for learning this system on the part of many Connecticut manufacturers. As a result of their exhibit of carriage wheels, the New Haven Wheel Company are now receiving foreign orders which come to them expressed in metric terms. The chilled car wheels made from Salisbury iron attracted the attention of railway men from abroad, and Barnum & Richardson are now shipping car wheels to other countries in answer to orders also expressed in metric language. When calling recently at the factory of P. Jewell & Sons, in search of metric facts, one of the firm showed me an order from Hamburg, Germany, just opened, which called for belts of twenty-seven different dimensions, all metrically expressed. In order to meet the European demand for their goods, they have issued a circular in the German language, expressing in metric terms the width and price of leather belts of fifty-seven dimensions,

ranging in width from twenty-five to nine hundred millimeters. The Meriden Britannia Company, who made a grand exhibit at Philadelphia, are filling orders for many metric countries. Some of our improved breech-loading rifles and cartridges are made metrically and thus adapted to the foreign market.

The Pratt & Whitney Company, machinists of Hartford, are now sending their machines abroad, and thus learn the practical bearings of this subject. The Secretary of this company says: "We recognize the desirableness of uniformity of weights and measures throughout the world, and are in favor of adopting the Metric System; but think others would suffer pecuniarily, with ourselves, if the changes were to be made *suddenly*. If manufacturers would begin at once to make *new* tools and apparatus in conformity with the Metric System, using the old until worn out, a change could be brought about with little loss, and not much more trouble than is now experienced from variations in measures." The makers of fashion plates and patterns use metric terms, and the multitude who would study the latest Parisian styles find in the centimeter the key to their interpretation. In this case even fashion coöperates with science and industrial interests in accelerating the needed reform.

European paper-makers are now putting up paper in packages of twenty-five, one hundred, and one thousand sheets, instead of our twenty-four sheets a quire and twenty quires a ream. Some American paper manufacturers have already adopted the same plan, so as to correspond with the usage in packing envelopes by twenty-fives, hundreds, or thousands. Orders to printers coming usually by the hundred or thousand can be more easily filled when their paper is purchased in packages of one thousand rather than nine hundred and sixty sheets. Their estimate of cost is thus facilitated, and odd remnants of peculiar kinds of paper for special orders are avoided. Some manufacturers put up their goods in packages of tens, hundreds, and thousands, instead of by the dozen or gross, and mark their prices by the dek or ten, hundred, or thousand. All the Metric Measures purchased for our schools by the State Board of Education are so packed.

The great Fairbanks' Scale Company have an unprecedented demand for Metric Scales and Weights for this country, Mexico, South America, Japan, and various countries of Europe. The Japanese government uses Fairbanks' *Metric* scales exclusively in its postal service. The United States Post Office Department has ordered a large supply. Extensive foreign orders have been received for scales adjusted to two standards, as Dutch and French, Spanish and French, German and French, and English and French. This firm has sent over thirty thousand metric scales abroad, and the foreign demand is rapidly increasing. They are already richly rewarded for the magnificent display made by them at Philadelphia. I am indebted to their kindness for the various Metric Scales shown in the Connecticut Educational Exhibit. No other manufacturing establishment in America has done so much to facilitate the introduction and use of the metric system as this celebrated firm. Their double weight-beam scales are the best possible teachers of metric weights, and form a most useful part of school apparatus. Like our Franco-English rules, they make the comparison of the two standards so simple, that weights may be converted from one standard to the other with the utmost ease and accuracy. The possible influence of such scales in educating the popular mind may be inferred from the well founded estimate that "the total amount in the way of exchange of values in the United States alone is over $3,000,000,000 annually, and in this vast interchange of commodities the process of weighing is repeated thousands upon thousands of times."

Our country needs more than all other nations, a world-language of weighing and mensuration, because we gather together in common citizenship so large a proportion of foreigners. And while there would be a slight temporary friction in our factories and warehouses in passing from our present system to the metric, the change would obviate the constant friction, and loss of weeks of efficient service, to our manufacturers, in training to the complexities of our system those skilled mechanics whom we welcome from metric countries.

General Hawley, in his able lecture on our late Exhibition, calls the attention of New England manufacturers to the unmis-

takable signs that our factories are before long to meet with serious competition in their great western traffic; for all over the West, competing enterprises are entering the field, with the advantage of nearness to the western markets.

But, in compensation, a vast market for our goods, fostered by our late exhibits, is rapidly developing in Europe, more cheaply accessible by water than is the West by land. New England is destined to be a great manufacturing center for the older nations across the ocean that bathes our shores and invites our ships. To secure this market, hardly any step of equal availability, is more necessary than that we should adopt the Metric System in gauges and all other constructions and transactions, to make these intelligible and serviceable in Europe. To fail to make this change, with its far-reaching consequences, on account of the slight temporary inconvenience involved, would be a deplorable blunder, if the future of the Eastern States is thus correctly foreshadowed.

IMMIGRATION HELPFUL.

Immigration from metric countries will greatly facilitate the adoption of this system. The French, Swiss, Italians, Belgians and some other nationalities now here, thoroughly understand it. Hereafter the Austrians, Germans, Swedes and *Russians* coming hither will bring the metric usages and preferences of the fatherland; for I learn through the Russian Consul at New York, that Russia, the only empire on the continent not metric, is actively preparing to adopt the Metric System. The commission appointed two years since by the Russian government to investigate the working of the Metric System, both in France where it has been longest in use, and in Germany where the change is most recent, and to inquire into the difficulties and disadvantages experienced by the sudden transition in Germany, has returned to St. Petersburg. They unanimously recommend the adoption of the Metric System as soon as the schools and the press can prepare the people for its use, and their report is favorably received by the government. In this respect, as long since in others, the Consul is confident that Russia will soon stand among the most progressive nations of Europe. Prejudice and aversion to changing the habits and

ages of a life-time are the most formidable obstacles to the doption of this new system with native Americans, but this rge portion of the foreign element in our country have no ympathy with such conservatism. In this view it is the more ecessary that the youth in our schools, while their minds are yet "tabulæ rasæ" should learn the Metric System. Then by the time they form the more numerous element in our citizenship, the change to the new system will be at once an accomplished fact.

THE OCEAN CABLES COÖPERATING.

A few months since, our morning papers said: "Yesterday the Sultan of Turkey committed suicide with a pair of scissors ten centimeters long." If the terms used had been sagenes, ardenes, or vershocks, only Turks or Russians scattered in Europe and America would have understood the dimensions. But the operator in Constantinople wisely used that only world-language known to intelligent readers in every civilized country. The telegraph enforces brevity and intelligibility. The metric terms are not only the same in all languages, but they are the most condensed, comprehensive and exact terms for the expression of all dimensions. The cable is so fraternizing the world and bringing the most distant nations into such near neighborhood, as to require for all measurements a common language in which dispatches from China, Japan, Turkey, Egypt or Russia will be everywhere intelligible.

FRENCH AND ENGLISH MEASURES COMPARED.

In the rules and charts furnished to our schools, I have combined the English and French measures for the purpose of comparison. In this way their metric values are most easily understood and remembered. There are a few who urge that only the metric rules and measures should be used and the Metric System taught in our schools to the entire exclusion of the English measures. But little do they know of public sentiment, who dream that the new system is so easily and rapidly to supplant the old. There must be a long period of preparation before the new system can be legally enforced as the exclusive one. This comparison of the two systems will aid in the desired transition, which must be gradual. Thousands of

rules have been furnished the schools of Connecticut, where hardly as many scores would have been called for, had they been purely French. Many buy them because they are cheaper than any English rules in the market, and have the metric marks "to boot." If our country were in the condition of Germany in 1871, if the old system were condemned and in a few months to be rejected as illegal for all contracts, I should recommend the use of metric measures only. But in this country public sentiment is well nigh supreme. It creates law and repeals it. A law in violation of public sentiment is a dead letter, and therefore demoralizing, for laws habitually violated tend to lawlessness. Laws in favor of the Metric System, however just and adapted to promote the greatest good of the greatest number, will fail utterly if not sustained by popular sympathy and support. In the monarchies of the old world, an imperial decree may settle the matter, but here, the question of the general adoption of the Metric System depends on the previous education of public sentiment, and that depends on the teachers and press of America. When that work of preparation is done, and when the immense advantages of the new system in the progress of the arts and in the applications of science, in smoothing the road to learning for the young and removing those hindrances to human progress,—arbitrary and cumbrous systems, rules and processes,—Congress will be only carrying out the popular will by fixing the date for the compulsory use of the Metric System.

The opponents of combined measures object that they "correspond to an interlinear translation from one language to another, and in the same way that a person learns a new language quickest by being placed where nothing else is spoken; if the measures have only metric graduations, he is *forced* to use those denominations." But what can be said of those who can never be placed in a foreign land "where nothing else is spoken," or of those with whom an interlinear translation was the only possible method of leading one to *begin* the study of a new language. This supposition exactly suits the case of thousands of our youth who would never see or study any metric measures unless they were the combined French and English. By these three threes (three feet, three inches and

three-eighths of an inch), they will easily and forever fix the meter in mind. Our metric yards (English on one side and French on the other, with a flexible joint adding the three inches and three-eighths of an inch) are already widely used in families as well as schools, being equally convenient as a yard or meter measure.

METRIC COINAGE.

Metric weights are used in our new subsidiary silver coinage. The twenty-cent piece weighs five grams, and the new ten-cent piece two and a half grams. The five-cent nickel is two centimeters in diameter and weighs five grams. "The coinage of the United States in both the metals, gold and silver, is at this time, in weight, almost in strict accordance with the Metric System. By the coinage act of 1873 the silver coinage is, by the explicit terms of the law, made entirely so. The legal weights of the gold coins are metric within so small a fraction, that for the smaller coins the tolerance remedy allowed by law for error of weight, in the mechanical process of coinage, more than covers the difference. The weight of standard gold in the dollar is twenty-five grains and eight tenths of a grain; and that of pure gold twenty-three grains and twenty-two one hundredths of a grain; an excess having the value of about three-tenths of a cent; while the legal tolerance on the gold dollar is one quarter of a grain of standard gold, of the value of one cent. The gold coins of the United States when in circulation lose in weight, shortly, by abrasion, more than sufficient to bring them to the metric standard. There seems, therefore, to be no valid objection to such a modification of the law which declares what shall be the weight of the gold coins of the United States, as to make the amount of pure gold contained in the dollar exactly one gram and a half; the weight of the other gold coins being modified accordingly. Should this change be made, all the coins of the United States, except the base metal tokens, will be made conformable to the same system of weights, and will be consistent with each other."—*Memorial to Congress of the American Metrological Society.*

It is one of many indications of the progressive spirit of the Japanese Empire that the new gold and silver coinage of that country is entirely metric. In 1870, Commissioner Ito, master

of the mint in Japan, was deputed to visit this country and Europe to investigate the subject of currency and coinage. After a thorough examination of the usages and prominent authorities on this subject in occidental countries, he recommended, in opposition to the traditions of the East, the discarding of the silver standard, and the adoption of the standard of gold only; and as the unit-base of the new system, of a gold coin of the weight of one gram and two thirds, of the fineness of nine tenths. An Imperial Decree was accordingly issued, providing for the stamping of gold coins of the several values, one yen, two yens, five yens, ten yens, and twenty yens, —the yen being the Japanese name of the unit-base or gold dollar. This gold coinage is now the only legal tender in the Empire, except for small payments, which may be made in fractional paper or silver currency; and except the silver one yen, equivalent to the Spanish dollar, used mainly in the open ports.

President Barnard well says, "This remarkable action, which illustrates in a striking manner the energy, independence, and freedom from prejudice with which the sagacious rulers of Japan are seeking to improve the social, political, and material condition of their people, is possibly destined to have a large influence on the ultimate settlement of the question of an international coinage. Should the example of Japan be followed by the more populous Empire of China, the demand of Oriental commerce may be for gold dollars instead of silver, and this demand may decide the question what precise weight can be most advantageously given to the gold coins of Europe and America."

CONNECTICUT EARLY COMMENDED IT.

Connecticut is believed to be the first State in the Union that formally recommended the teaching of the Metric System in all the public schools. In the General Assembly of 1864, the following resolution, introduced in the Senate by the Hon. Wm. C. Fowler, was duly referred to the Joint Standing Committee on Education, afterward reported adversely by them; again discussed in the Senate and recommitted to the same committee, who after a full hearing recommended its adoption. After considerable discussion, the resolution was finally passed without opposition in either House.

Whereas, nearly half the population of the Christian world use in part or exclusively the Metrical System of Weights and Measures; and *whereas*, it is in exclusive use in some departments of science and in constantly increasing use in others; and *whereas*, the recent International Congress at Berlin, at which thirty-three nations of Europe and America were represented, have recommended that this system be taught in all public schools; and *whereas*, it is highly probable that the system will be adopted throughout the United States during the present generation:

Resolved by this Assembly, That the Superintendent of Common Schools and the various Boards of Education and of School Visitors in the several towns and School Districts of the State, be urgently recommended to provide that the Metrical System of Weights and Measures, together with its relations to the legalized systems, be taught in all the schools which are under their charge.*

COÖPERATION OF TEACHERS.

The coöperation of teachers is earnestly solicited in preparing the public mind for the general appreciation and use of metric measures through our schools. It is largely for their sake that I have here presented a brief history of the Metric System, its origin and progress, the defects of the old system and the advantages of the new; its great simplicity, its brief and exact nomenclature, there being only eleven words to be learned and but one of those a new term.

A pamphlet containing this discussion of the Metric System and the Stanleys' excellent Meter-Diagram will be furnished gratuitously to every teacher of Connecticut. The five cent Franco-English foot rule and the Meter-Diagram ought to be in the hands of every scholar. Owing to the extra cost of the metric graduation, these rules being marked in both centimeters and millimeters, fifty dollars per thousand is as yet the lowest figure at which I have been able to procure them by the thousand. If they can hereafter be manufactured at a lower rate, the schools and teachers shall have the benefit of the reduction. They will be furnished at the office of the State Board of Education in New Haven, singly, by tens, hundreds or thousands, precisely at the cost per thousand. When sent by mail, one cent for each rule will pay the extra charge for postage. Whatever is procured for schools through the State Board of Education, whether Webster's Dictionary (at eight

* See Senate Journal for 1864, page 261.

dollars, or when given as a prize for spelling, six dollars), Lippincott's Gazetteer, outline maps, charts and school apparatus, &c., is furnished at the lowest wholesale rate, adding only the cost of freight.

The full meter should also be in every school, that the children may measure themselves metrically and their desks, seats, slates, books, the windows, dimensions of the room and other common objects. Every child who learns his own height in centimeters has a fixed standard always at hand which he will constantly, if not unconsciously, apply in a thousand ways. In this way scholars learn to use metric denominations. The meter-sticks serve well also for map and blackboard pointers, and for blackboard-ruling where the foot rule is too short.

That many will not appreciate the system at present is fully expected. No doubt some will censure the advocacy of it in this Report, but the certainty of appreciation by the rising generation, by all the children in the schools who are thus led to its study, will amply compensate for any such censure or criticism. The impressions and comments of to-day are trifles compared with the broad results of the future. Teachers should view the difficulties and duties of the present in perspective, and learn the effect of time as well as space in minifying that which seems great only when near, and magnifying whatever is just and true, however old or humble. As leaders of public sentiment, instead of the old routine, merely meeting the requirements of parents to-day, they should, with a wise foresight, prepare their pupils for the new demands of the morrow—the certain exigences of this progressive age.

METRIC STANDARDS FOR THE STATES.

The following official statement by J. E. Hilgard, Inspector of United States Standard Weights and Measures, shows the remarkable care and accuracy with which they have been prepared. Every device of modern science has been applied to render them unalterable and indestructible. A complete set of Metric Standards has been furnished to each State.

List of standards furnished to the States.

Length: One meter, end measure. One meter, line measure,

Weight: One kilogram. One demi-kilogram. One gram, with subdivisions. One myriagram, or ten kilograms.

Capacity: One liter. One decaliter.

Particulars of Meters.—The end measure is of cast steel, ten millimeters thick, thirty wide, with cylindrical ends, and small cylindrical projections in the axis, of hardened steel, with abutting faces three millimeters in diameter, equal to one meter, legal standard of France, at the temperature of melting ice. The divided line measure is of brass, composed of three parts of copper to one of zinc, the bar extending beyond the terminal lines; divided into decimeters, one decimeter into centimeters, and one centimeter into millimeters, the length between the terminal lines being equal to one meter at a temperature of the bar of about 68° Fahrenheit, or 20° centigrade, and each bar bears an inscription stating the temperature at which its length is equal to one meter. Each of these line measures is provided with a convenient tracing frame for copying the division.

Particulars of Weights.—The kilogram is of brass, of an ascertained specific gravity; it is equal when weighed in a vacuum to the weight of the French platinum standard kilogram in vacuum. Demi-kilogram, gram, and fractions to milligram. Myriagram, or ten kilograms. The form of the weights is similar to the present American standard weights, so as to be handled with hooks, forks, and pincers, which are provided.

Particulars of Capacity Measures.—The standard liter is of brass, composed of fifteen parts of the brass used for the meters, melted together with twelve parts of copper, and one part of tin; of a form similar to the American quart, containing a volume of distilled water, which, when weighed in vacuum equals the weight of one French standard kilogram in vacuum, the water being at the temperature of its greatest density, and the vessel at the same temperature. The dekaliter contains ten liters, as thus defined.

The three packing-boxes contain a set of standard metric weights and measures, carefully packed in walnut cases. The packing-box marked "Weight" contains a myriagram, kilogram, demi-kilogram, gram, and the decimal fractions of a gram to include a milligram. The box marked "Volume" contains a dekaliter and liter, with their ground-glass covers. The box

marked "Length" contains two walnut cases. In one of these is packed a steel meter, with hardened steel ends protected by brass caps; this is an end measure. The other walnut case contains a brass meter, which is divided into decimeters, centimeters, and millimeters, and is a line measure. In the same case and lying parallel with the brass meter is a bar of wood of the same dimensions as the meter, held firmly in its place by means of wooden wedges. This is so placed as to show the manner in which a bar of brass of the same dimensions can be secured for the purpose of having transferred upon it the meter and its decimal parts. A tracer is packed in the box with the meter, and is operated in the following manner: After the brass bar, on which it is desired to have the meter and its parts transferred, is well secured in position by means of the wooden wedges, the tracer is placed upon the standard bar in such a position that the short line under the magnifying glass shall accord with a line on the standard bar, and while held firmly in this position, the movable portion of the tracer holding the cutter is passed carefully over the brass bar, making a mark upon it at right angles with its length. The tracer is then moved so as to accord with another line on the standard bar and another cut made on the brass bar. This operation is continued until a complete copy of the standard is transferred to the brass bar. By the side of the cutter is a long steel screw, which can be set as a guide to determine the depth of the cut made by the cutter. A revolving head on the tracer, with two notches filed in it, is placed there for the purpose of determining the length of the line cut. A steel screw in the movable portion of the tracer is so placed as to strike against this head and stop the motion of the cutter in that direction, and it will be readily seen that three different lengths of lines may be made by moving the head so that the stop-screw will at different times strike on the face of the revolving head and in the notches. Before the brass bar is put in place it will be necessary to have it well prepared with a smooth surface, having lines traced on it in the direction of its length, similar to those on the standard. The standard bar should never be removed from its place in the case. The weights should never be touched with the naked hand. Lifters are placed in the cases.

NORMAL SCHOOLS.

The official documents and school reports found in the foreign Educational Exhibits at Philadelphia show the great prominence given to Normal Schools in Europe. Germany maintains one hundred and seventy, France ninety-two, Italy fifty-nine, Austria fifty-six, Switzerland though smaller in area than any one of thirty American States, maintains twenty-six "Teachers' Seminaries." In every country of Europe that professes to maintain universal public education, Normal Schools are regarded as an essential part of the system. In Germany a Normal School diploma is the usual condition of the "teacher's license." Normal Schools in that land have long since ceased to be regarded as an experiment. The first institution of this kind and the germ of the system, since so fully developed in Prussia, was organized in Halle, in 1697, by Augustus Hermann Franke. Hundreds of teachers from different countries of Europe pursued here a two years' course of pedagogics. During the next half century, through the influence of the pupils of Franke, many Normal Schools were established. They have been tried in Austria for more than a century.

Though the first Normal School was established in England through the influence of Lord Brougham and others, less than forty years ago, these schools now abound in England, Ireland, and Scotland, and a chair of Didactics has lately been established in the University of Edinburgh, in which Prof. S. S. Laurie was inaugurated as the occupant in March last. It is a reproach to us, that no similar professorship exists in any American college except the State University of Iowa.

The success of Normal Schools where they have been longest maintained and are best known demonstrates their utility. In Europe, the experiment has been tried in so many countries, under circumstances so diverse, and with results so favorable, as to commend them strongly to public favor. Special preparation is everywhere required for teaching, and it is a permanent business. Once licensed and located, teachers are seldom changed, and never re-examined. A license once given lasts for a life-time. Teaching even a private school without a

certificate of competency is prohibited under heavy penalties. The normal programme of study is liberal and comprehensive. The following is the course of study at the Pedagogium of Vienna:

Language.—The German Language and Literature, the French Language, Grammar Exercises in Dictation, Composition and Conversation, Translation and Analysis of the French Classics.

Mathematics.—Arithmetic, Algebra, Geometry, Trigonometry.

Natural History.—Zoölogy, Botany, Mineralogy, Human Somatalogy, Morphology, Crystallography, Geology, Physics, Chemistry, Exercises in Laboratory.

Geography and History.—General and Special Geography, including Map-drawing and Statistical, Physical, Economical and Political Geography, History, General and Special.

Art Studies.—Design, Linear and Artistic, Figure, Ornament, Architecture, Blackboard Drawing. The Study of Forms, Modeling, Geometrical Constructions, Relief Maps, etc.

Pedagogy.—Psychology and Logic. Methodology, or Methods of Instruction, Educational systems, History of Pedagogy, Practice of Pedagogy.

Dr. Charles Saffray, an eminent Frenchman, who inspected our schools as well as the Centennial Exposition, justly criticised our methods of examining, certificating and *changing* teachers, saying, "The teacher should be chosen for his merit, proved by diplomas and rigid examinations, and he should feel sure of preserving his position as long as he remains worthy thereof. As long as the United States do not assure to teachers impartiality of nomination and promotion, permanence of functions and security for the future, they will too often have only inferior or mediocre teachers, and in spite of the most flattering programmes, popular instruction will remain, in many districts, quite insufficient." M. Buisson, charged with the duty of collecting the educational statistics of France, in an able report to the Minister of Public Instruction in the main complimentary to us, says, "The insufficient training of teachers has hitherto been one of the greatest deficiencies in the American school system. The continued change of teachers and the short period during which the majority of them remain in their profession, explain sufficiently why the results are not in proportion to the generous expenditures of the country."

In the Normal Schools of Europe, pedagogics, or the science and art of teaching, are taught both in theory and practice.

Teaching there assumes the character of a distinct profession. No profession more needs a special school for instruction in its appropriate science and methods. The difficulty of the science is equaled only by its importance. It is based on the most comprehensive of all sciences—the philosophy of the mind. It inquires what is the mind, and especially, what is the juvenile mind. It is harder to measure the mind of a child than of the adult. What are its powers and organic laws of growth? What is the relation of the mind to the body and the mutual influence of the highest training of each upon the other? What hygienic rules should be adopted as to ventilation, posture, light, care of the eyes, and school gymnastics? What is the one great end which all means and methods should subserve? What is the order as to time in which the different faculties are to be developed? What is the proper succession of studies? What are the special adaptations of each study to particular necessities and faculties of the juvenile mind? What lessons does the Kindergarten system suggest to the teacher of the public school in regard to the laws of childhood,—activity, love of freedom, need of occupation, love of knowledge, or curiosity, love of play (and how to utilize this instinctive desire and make play an educator, using direction rather than repression), love of power, of achievement, and invention. The practical lesson here, alike in play, work or study, is never to do anything for a child which he can reasonably be stimulated to do for himself, so that *learning by doing*, he may easily gain true self-reliance.

By what incentives may youth be best stimulated to studiousness and right conduct? The philosophy of motive is of great practical importance. Here the teacher should not practice empirically, for children need impulse even more than mere instruction. In the Normal School the skill and experience of experts are made available for novices. Principles and methods learned in long personal service, or drawn from wide observation of the mistakes of others, are given to beginners. They here learn with what tools they are to work, and how to handle them; for what ends they are to work, and on what materials—the plastic faculties of childhood; what difficulties are to be overcome and what mistakes to be avoided.

The necessity of the special training of teachers may be inferred from the fact that the first steps of the pupil are the most important, as well as the most difficult. Lasting aversion to books often springs from poor processes in the primary school, where the question is early decided whether study shall be a pleasure and a privilege, or a dreaded task. The school is what the teacher makes it. The juvenile mind is wax in his hand. To know by what hidden avenues to enter the juvenile mind, and when there, what secret springs of thought and action to touch, is the privilege only of the trained teacher. Pupils often grope in doubt and dejection who might walk in light and joy. They need to be taught *how* to learn as much as what to learn. As the great majority of pupils are in the common schools, our Normal School aims to train teachers, not so much for High Schools, of which there are comparatively few, as for the district schools and the several departments of our graded schools, where skill and tact are specially needed. Bungling processes are most disastrous in the primary school. Blundering at the start has often put out the eyes of the mind. A believer in the doctrine "the physician born, not made," (a motto on a par with "the teacher born, not made"), once said to a distinguished occulist, who was advocating the necessity of thorough training in his profession: "Why, doctor, you have attained the highest skill without such aid." The occulist replied, "But I spoiled a bushel of eyes in acquiring the art, and now I can teach others to avoid my blunders." Contrasts most marked I often witness in schools similar in other conditions, except that an expert teaches the one, and a novice experiments in the other. In the one you see order, interest, activity, cheerfulness, and the joy of conscious progress; in the other, confusion, whispering and mischief, or listlessness, indolence, and dislike of study.

To the objection sometimes heard that the State should no more undertake to train teachers than lawyers or doctors, I reply that trained teachers are essential to the success of public schools, and the experience of Europe for more than a century proves that they can be secured in due numbers only by the aid of the State. The emoluments of other callings invite a full supply of candidates. The number of teachers far exceeds

that of all other professions combined, but the motive to expensive preparation is less. as the compensation and average time of service are relatively small. An adequate supply of teachers, as of military officers, can only be secured by State aid. The military expenses of all the European nations, and even of the American States, vastly exceed the expenditures for Normal Schools. The chief advantage of expensive military encampments and establishments is the training and experience there given to the officers. While liberal expenditures are properly made for their drill, shall not the State also train the teachers who are to shape and control the destinies of the coming generation? Shall the State maintain organizations to teach the art of war, and train men how to kill, but do nothing to prepare teachers for the higher work of giving life and culture to the mind.

The Normal School is an important factor in educational progress. Its instructors aim to keep abreast of the educational movements of the day, to become acquainted with new ideas and methods, new plans and adaptations in school management, apparatus, appliances, and text-books. It is their duty to give the benefit of such investigations to their pupils who, as graduates, may carry progressive ideas into the rural districts.

Extensive observation of schools of all grades, and consultations with friends of education in every town of Connecticut, have confirmed my conviction that the Normal School has greatly improved the condition of our Public Schools, introduced more independence of text-books in recitations, and better methods of teaching, influence, and discipline. The diffusion of normal methods by the graduates has been much wider than the circle of their direct labors. The improved processes adopted by one normal graduate are often introduced into many neighboring schools.

The whole number in our Normal School from January, 1876, to January, 1877, was 160. The number of graduates the last year was 41. The number in the school at the present time is 95.

SCHOOL ARCHITECTURE.

Photographs of school houses were shown in nearly all of our State Exhibits at Philadelphia. New Jersey displayed over four hundred photographs of school buildings. Next to New Jersey in the proportion of her school houses represented was Connecticut. No city of its size in America can show better school edifices than Hartford, nearly all of which were finely represented at the Exposition. There has been of late great improvement in school architecture in Connecticut, and throughout the country. In this respect we need not shrink from comparison with any European country.

In anticipation of the International Exposition of 1873, not to say as a part of it, Austria erected two or three magnificent school edifices in her capital which, though excellent, are exceptional in that country. They did not seem to me to justify the glowing picture of "Austria's splendid school architecture" by an enthusiastic visitor of the Vienna Exposition, who was equally eloquent on "the superb Swedish school house there erected, which was a perfect gem, a genuine model, and altogether unrivalled in America." This wonderful Swedish school house reappeared in Fairmount Park, and however unique and interesting as a specimen of Swedish style and workmanship, it did not furnish a single new suggestion of any value to us, for the poor specimens of ill-ventilated school houses still found in many of our country districts have long since been condemned by the friends of education, and are fast disappearing. The Swedish house, while not by any means extraordinary, is a good one, and it is exceedingly gratifying to learn from the Swedish Minister of Public Instruction, that "the school law prescribes that *every* school house shall hereafter be constructed substantially in accordance with this plan. The rooms must be large, light, lofty, cheerful, provided with fireplaces, and generally arranged with strict regard to the health of the scholars and necessary conveniences of instruction."

In connection with her general Exhibit in the Main Building, Belgium showed a much better model school house, reduced in size. When visiting a large number of schools in that

country, I found nothing like this beautiful model, but on the other hand, many proofs of their great need of it. This model illustrates not what is, but rather what is to be in Belgium. The plan has lately been devised by the Central Commission of Primary Instruction and the Superior Council of Hygiene, and was adopted by the government in 1874. Nothing offended me more in visiting hundreds of schools in Europe, than the bad air one was compelled to inhale. But in this plan a thorough system of ventilation is adopted, which is well described by Hon. E. A. Apgar.

"There is a three-fold arrangement for the supply of fresh air. (1) The surbase is set off from the wall about four inches and covered with perforated zinc. This forms an open space completely around the room. This space communicates with the outside by several openings, each about eight inches in diameter. These communications may be closed or left open at the will of the teacher. The air enters these openings, but instead of passing directly into the room it strikes the surbase and is reflected upwards into the room through the perforated zinc. (2) The lower sash of the window is intended to remain closed, the upper sash is hung on hinges on its lower edge, and so arranged that it can be opened by drawing the upper edge within the room. The angle it can make to the vertical wall is thirty degrees. The air in entering this opening comes in contact with this inclined sash and is reflected upward against the ceiling and down into the room. Thus the force of the current is here spent before it reaches the children. (3) The stove, instead of depending upon the air of the room for the oxygen it needs to support combustion, receives its supply directly from out of doors through an opening or passage way under the floor. Thus there is an abundant supply of fresh air into the room, and the children are all secure from draught. There is a double arrangement for the exit of foul air: (1) There is a register in the floor in each corner of the room, from each of which there is a passage way or flue under the floor. These flues come together and unite under the stove and there communicate with a flue in the stove that leads out of doors through the roof. This passage way for the foul air is along side the hot-air flue, it therefore becomes heated and draught

is produced, which tends to draw the foul air, which finds its place near the floor, from the room. (2) A passage way around the edge of the ceiling is made with perforated zinc similar to that around the room below. This communicates with the outside by four pipes, one at each corner. These pipes are about eight inches in diameter and are capped with an elbow and vane so arranged that the mouth is always turned in the direction the wind is blowing. This has the effect of causing a draught also, and the foul air that finds its place near the ceiling is drawn from the room."

It is an encouraging fact that the school houses recently erected in this State have been built in accordance with the carefully prepared plans given in our late Reports. Our new school houses in the rural districts, though inexpensive, are generally well planned and ventilated, and adapted to their purpose in regard to health and convenience.

SCHOOL FURNITURE.

The school furniture shown both in Swedish, Belgian, and Canadian Exhibits, and in the photographic representations from other countries, was far inferior to ours. This is true of the furniture found generally in the schools of Europe. The very best I found abroad was called "American school furniture." Manufacturers in Germany, Switzerland, Austria and France, copied the school furniture exhibited by Americans in the Paris Exposition in 1867. Hence originated a new style widely used in European countries, which though a great improvement on their old seats and desks, is not yet equal to the best in use here.

The improved seats are recommended mainly because they favor erectness of posture. But it must be admitted that with poor seats, sometimes only deal planks, the posture of pupils in the French, Swiss and German schools is far better than that of American youth in our best furnished houses. The admirable attitude of foreign scholars, even when sitting on plain boards, was a mystery to me, till I discovered that the military spirit was all-pervasive. Every boy in Germany expecting to spend at least two years in camp, is early trained

at school to be "erect as a soldier." "SIT UP," is the oft-repeated command. "Sit up—a pretty officer or soldier, you would make, bent up like half a keg hoop." Well would it be, if American youth, so often enervated by stooping, would imitate this example in European schools. No words need to be so often repeated by the American teachers as "sit up." Nothing will tend more to improve our national health, for comparatively we are a stooping people. Our youth should learn that they will live the longer and be the stronger if they sit erect, walk erect, run erect, work erect, and sleep—at least straight, always keeping the form in position to breathe deep and full, and at every inhalation take in the fullest amount of air.

SCHOOL APPARATUS AND APPLIANCES.

The Educational Exhibits made by our States consisted mainly of scholars' work, those of European countries, chiefly of school apparatus and appliances, in which they greatly excel, and teach us a much needed lesson. The contrast between European and American school rooms in their equipments is striking. With superior buildings and more elegant and costly furniture, our bare school rooms have far less provision for illustration. This was admirably shown in the complete outfit of the Swedish School House, the walls of which were nearly covered with charts for teaching every department of natural history, physiology, and botany; maps, drawing copies, and charts for teaching reading, writing, and arithmetic. Their charts in natural history were of such rare excellence, that I tried to procure them for our Normal School, but found that they were already sold to Japan. I secured two large volumes containing many hundred species from their grand herbarium. Here were eight cases containing their ordinary species of moss, lichen, and fungi. In other cases were stuffed specimens of mammals, birds, fishes, reptiles, and preserved molluscs; and minerals, shells, corals, fossils, grains, seeds, nuts, woods, and insects. As illustrating a plan I have long recommended to teachers, I purchased the large case of native woods here shown, such as any teacher might procure for his school without any cost. Our youth need to be taught the beauty of

our native woods, and to discriminate the different kinds of wood by the grain. There were maps showing the geology as well as the geography of Sweden, and also the rainfall, temperature and density of population of the different sections of the country. Besides a small set of philosophical and chemical apparatus, there were shown geometric forms and *Metric Weights* and *Measures*. The latter is an appliance usually found in the schools of the Continent, and just beginning to be introduced into the schools of America. Notation is taught in the Swedish schools by bundles of small sticks like long matches, tied together in packages of tens, hundreds, thousands, and so on, placed in a board with holes in the unit place for single sticks, in the tens place, for the packages of tens, and so on. A clock face with movable hands served to show how to read the time, the teacher setting it and the scholars reading the time, or the scholars each in turn both setting and reading the time. Upon the school organ was a blank musical staff, on which by an ingenious contrivance the notes instantly darted into place as the teacher played the instrument, so that the notes were sounded and shown at the same instant.

In the Belgian school house were shown most of the same appliances as in the Swedish, especially the specimens in natural history, and samples of woods, minerals, insects, and other objects found in the vicinity of the school; also, celestial and terrestrial globes, geometric forms, a printed programme of study, and a thermometer for each room; a library of reference books, copies and models for drawing and for lessons in architecture, and a set of Metric scales, weights and measures, also a variety of fabrics of leather, linen, woolen, silks, and the like, arranged in connection with the material out of which they were made, and this material shown in various stages of growth or preparation. The crucifix and a bust or portrait of the king are usually found in the Belgian schools. The apparatus for light gymnastics are also common. Gymnastics are widely practiced in Switzerland, Germany, Austria, Belgium, and some other European countries.

Switzerland showed most of the same appliances and besides some excellent needle and worsted work done by girls. Advocating industrial schools for girls as well as boys, I endeavored

to procure the latter to illustrate the practicability of similar work here. These interesting specimens for the present have been returned, as originally promised, to the Cantons that furnished them, but I have arranged to secure either these or others like them, during the present year, for our Normal School. The influence of Industrial Schools in Switzerland, Germany, and other European countries, is as important in dignifying labor as in increasing its efficiency and productive value. Girls as well as boys are there taught, both in the family and school, that to learn to be useful is alike their interest, privilege, and duty. The too common theory with us that labor is a degrading drudgery, and the aspiration for genteel employments, have ruined myriads of our young men and brought financial disaster to the nation. These mischievous notions ought to be refuted in our schools, where our youth should be taught the necessity and dignity of labor, the evils of indolence, and the sin and folly of this wide-spread disdain for manual labor. This sentiment, that labor is servile and degrading, is one of the worst effects of American slavery that survive it. The Swiss schools not only have the metric weights and measures, but require the pupils to weigh objects and work out extemporized problems of cost per kilo of common objects of traffic.

The exhibition of school apparatus made by Canada was a grateful surprise to most Americans. It was the fullest and finest collection of school and college equipments shown at Fairmount Park, embracing every appliance from "the gifts and occupations" of the Kindergarten to the apparatus of the college. In a visit to Toronto a few years since, I was greatly interested in the Grand Educational Depository, which the Government of Ontario had established in that city. On the plan of helping those who help themselves, kindred to that of the Connecticut Library Appropriation, the government appropriates within certain limits, an amount equal to that raised by the local authorities for the purchase of apparatus, prize-books, text-books and books for school libraries. These are furnished from the Toronto Depository at two-thirds the retail price, and by the aid of the government appropriation, may be procured by any educational institution at only one-third the retail price. The grand exhibit made at Philadelphia was sent directly from

this great Depository. So far as my observation has extended, the schools of Canada have as yet but partially accepted this most wise and liberal provision for securing apparatus. Their own statistics confirm my impressions made by visiting Canadian schools. This Department in twenty-one years has sent out 1,461 Geographical maps, 144 Scriptural and Classical maps, 123 globes, 43 sets of apparatus, and 446 single pieces of apparatus. Compared with the number of schools in Ontario, (about five thousand), this showing hardly equals the supply of similar material furnished to schools of Connecticut in the same period. But the distribution of books by this agency has been surprising. There have been sent to 4,310 Public Libraries over 253,000 volumes, and also for awards to scholars over 627,000 prize-books. The stimulus to studiousness by prizes has been carried further in Ontario than in any country within my knowledge.

To encourage the formation of School Cabinets of Minerals, and collections illustrating the practical sciences, specimens in Natural History and in other scientific departments, are furnished for schools on the same terms as are books and apparatus; and the coöperation of teachers and scholars is enlisted in gathering collections from their own neighborhood. This work of the Depositary is worthy of special commendation and imitation in this country.

The School Exhibit of Japan was a new revelation to many, as much as were her beautiful lacquer, bronze and ceramic works. Photographic views of their old school rooms were shown in striking contrast with interior views of the new. In the one the pupils sat on their feet, placed behind them in a posture which an American adult could hardly take, and still less endure for any length of time, and yet the posture which, until recently, has been universal in Japan for all classes, and alike the old and young; the other was a representation of our most improved school room and furniture.

The introduction of chairs is a grand benefaction of civilization to Japan. Some of the finest chairs shown in the Exposition were those made in Japan. The elegant mansion of the Japanese Minister in Washington is furnished in part with beautiful chairs of Japanese make. The old posture of the

Japanese hindered the circulation of the blood in the lower limbs and favored a stooping posture and introversion of the feet. Besides various appliances for teaching gymnastics, the Japanese Exhibit included an excellent set of chemical and philosophical apparatus of Japanese workmanship, cases of shells, molluscs, reptiles, insects, birds, fish and pressed botanical specimens, also charts for reading, writing, arithmetic, drawing, and a most beautiful series of colored charts in natural history and botany. I should deem it most fortunate for Connecticut if every school was supplied with charts so admirable as these for teaching natural history and botany, a set of which, presented to me by Hon. Fujimaro Tanaka, the Minister of Public Instruction, may be seen at the office of the Board of Education. As a slight expression of our appreciation of his courtesy, I have sent him a set of our various appliances for teaching the Metric System.

PEDAGOGIC MUSEUMS.

Many of the European Governments have liberally donated their Centennial Exhibits to the United States Government. For their reception, a new building on the grounds of the Smithsonian Institution has already been planned, in which one large wing is set apart for a Pedagogic Museum. The educational appliances embraced in these foreign gifts are nearly enough to fill this large wing. Once organized, it will be a nucleus around which will be gathered the material for an ample Educational Museum. Such an institution is greatly needed in this country. The importance and usefulness of such a museum were happily illustrated by the grand display made at Philadelphia by the Pedagogic Museum of St. Petersburg. The Educational Exhibit of Russia evinces the thoroughness and success with which industrial and technical education has been recently organized in that country. The great Pedagogic Museum at St. Petersburg has contributed much to this result. The statements here given on this subject are condensed from the Russian Reports. This Museum is designed to collect and diffuse information in regard to the best school apparatus made in Russia or abroad, and to exhibit

the fullest possible collection of the same, so as to facilitate selection and purchase to suit individual requirements. Experts are employed rigidly to test these various appliances and determine their comparative merits, and in case of need, introduce improvements required, and to reduce the cost of their production and sale to the lowest practicable figures. Through the Russian Ministers and other agents in foreign countries, this museum is continually collecting information in regard to school apparatus and appliances in other lands. Russian agents carefully studied our Exposition, as they have all others where pedagogic apparatus has been shown, collecting catalogues and price lists, and procuring specimens of school apparatus for the St. Petersburg museum. The following partial list of illustrative objects, given in round numbers, suggests the extent of the museum: For use in religious instruction, 70 charts, etc.; in Mathematics, 120; Natural Philosophy, 400; Natural History, 600; Cosmography, 100; Geography, 300; Political History, 200; Drawing, 100; Calligraphy and Stenography, 50; Course of Elementary Schools, 50; Home and School Kindergarten, 250; Gymnastics, 40; Music, 80; Hygiene, 200; Specimens of school and class furniture, 2,700; Slides for the magic lantern, 4,000; teachers' library, 12,000, and pedagogic periodicals, 50. Drawing from so ample a museum, it is not strange that Russia made a most interesting and instructive exhibit, including charts, maps, models and apparatus for teaching Religion, Reading, Writing, Geometric Forms, Drawing, Geography, Calligraphy, Music, Molluscs, Insects, Fishes, Reptiles, Birds, Minerals, and indeed nearly every department of Natural History, Botany, Mineralogy, Crystallography, Ethnography, Political History, and Physics.

The success of the St. Petersburg museum is the more striking in view of its recent origin. That an institution organized only a dozen years ago has already assumed so large proportions is but one of many indications of the rapid progress made by Russia during the last decade.

To encourage the invention of improved school apparatus in all parts of the country, the Museum has proffered to the producers of such articles, free use of models and drawings of the best school appliances that could any where be found, and

given to every inventor the privilege of exhibiting his specimens in the Museum, with the assurance that they should be fairly tested and examined, and if found meritorious, duly "certificated," and advertised in the Pedagogical Journal, and shown in local or provincial exhibitions, and if worthy of such honor, displayed in International Expositions at the expense of the Museum, while the inventors should retain all their rights and profits as exhibitors. Numerous provincial exhibitions under the direction of the Museum, and with its material, not unlike our Teachers' Institutes, served to show teachers and school officers the most improved methods and appliances. The Museum provides for free lectures and discussions on various educational questions and scientific topics, and distributes widely catalogues of all its collections, and books which are opened freely to all.

The Pedagogic Museum of Vienna contains a large collection of "Means of Instruction." It was represented at Philadelphia only by a series of photographs which, admirable as they were, did no justice to this interesting and valuable collection. The Pedagogical department of the South Kensington Museum of London and the Industrial Museum at Zurich were but partially represented. In other respects, and in its more appropriate field, the South Kensington Museum was unrivalled in the beauty and variety of its exhibit.

GEOMETRIC FORMS.

For many years I have advocated the teaching of form among the very first exercises in the Primary school, even before the alphabet, and as the best preparation for learning the letters.

The Swiss Exhibit contained three sets of geometric forms, made respectively of wire, wood and paper. Similar appliances were shown in the other foreign exhibits. I found these appliances very common in the best schools of Europe. In Switzerland and Germany, as ought to be the case in America, the children are early taught the common forms in plain and solid geometry. As the letters are made of straight lines or circles, or a combination of the two, this greatly facilitates the mastery

of the alphabet, and indeed of almost every other study. Much has already been done in the Normal School and Teachers' Institutes to lead our teachers to treat form as a primary and fundamental lesson, underlying geography, natural history, and nearly all scientific studies. The child's intellectual life begins with the reception of impressions from the senses, which are the windows of the soul. The noblest of these, and the royal avenue to his mind, is the eye. From the outset, this is busy with form as seen first perhaps in its hand, its mother's face, the kitten, the window, and other common objects in the room. The child recognizes hundreds of different things by their shapes before he can count as high as five. Nothing tends so surely to sharpen the child's perceptions as the early study of form. If his perceptions are exact, his conceptions will be clear and accurate and then the natural sequence will be definiteness of reasoning and imagination, for the visible forms of nature rightly observed are best fitted to stimulate and train the memory and imagination.

The majority of our scholars will never pursue geometry proper, but those who can never study its higher problems and theorems may and should all learn its forms. The ideas and terms thus learned will be especially useful to the carpenter, joiner, mason, worker in tin or in any metal, or at any trade.

In modern education nature becomes the great teacher. Facts, objects, common things are made the leading instruments in developing the faculties of the juvenile mind. Plato well said "The Deity delights in geometrizing," for the world itself and everything in it is built after some geometric form or combinations of these forms. If then it be desirable to train youth to study nature, to learn the science of common things by early forming habits of careful and exhaustive observation, shall we not give them the few exact forms, which, singly or combined, are the patterns of all objects? The child's mind naturally turns to form and size, and if untaught, his notions will be vague and confused; if trained in these simple elements of geometry, they will be distinct and accurate. These elements are simpler than the first processes in arithmetic. Ideas of extension are more elementary and attractive than those of number. In the Kindergarten, children amuse

themselves with combinations of form before those of number. Whether with the paper-folding, cutting, or pricking; with the wires, slats, cork, blocks, or plastic, they are creating forms rather than counting pieces and parts. The relations of place, form, and size are among the earliest conceptions of the juvenile mind.

The supposed difficulty of the subject is imaginary. Multitudes of children from three to six years of age in the Kindergarten schools of Europe and this country are taught these forms. They make them with their blocks, cut them out in paper-pasting, shape them in paper-folding and paper-weaving, form them with wires and cork, mould them with plastic, draw them on the slate and blackboard, and thus easily and early learn them. One grand result of Kindergarten teaching is its demonstration that form is one of the earliest, easiest, pleasantest, and most useful occupations of the juvenile mind.

With the gonigraph in hand, as with a sort of magic wand, the youngest children in the Kindergarten delight in making triangles, squares, rhombs, rhomboids, oblongs, pentagons, hexagons, circles and other forms. Because they are made with facility and rapidity by their own little hands, these forms are understood and remembered. This essential apparatus of the Kindergarten ought to be in every primary school. To facilitate its introduction it is furnished by the State Board of Education to the teachers of Connecticut at the cost per thousand. Jointed and divided into seven parts, and graduated according to both the English and French standards, it serves alike as the measure of the yard and meter, and forms one of the best helps for teaching the Metric System.

The subject of form enters into all our perceptions, descriptions, comparisons, imaginations, calculations, and indeed into all the arts and occupations of men—the very texture of daily life. The direction which Plato placed over the door of the Academy, "Let no one enter without a knowledge of geometry," ought to be inscribed over the entrance to every school-house in the land, as applicable to the teacher, so far, at least, as relates to the common geometric forms. "Let no child leave even the primary school after the first term of his attendance without a knowledge of these forms," ought to be the motto plainly written on the inside of every school.

"The curiosity which speaks in children's busy eyes and hands should be to us the voice of Nature, bidding us make our beginnings early. The infant who cannot speak, gazes earnestly and thoughtfully at the most common object, returning to it, and glancing from one part to another, as if to learn their connection. When he can walk, he goes around it, handling it and studying it with all his senses. When he speaks, his questions are of size, form, and distance. If our answers are careless or unsatisfactory, his quick eyes and mind, not blunted by habit, detect our errors. He loves comparison of objects, and the imaginary multiplication and extension of them; he is pleased with the new and the different, and equally pleased with resemblance and equality to things known before. Happy age of natural geometry—when each look and motion, nay, his very games, lead the boy on to the laws which shape the spheres and hold the planets in their course!"

STATE BOARD OF EDUCATION.

My work in Connecticut for the last ten years has been greatly facilitated by the uniform coöperation of the members of the State Board of Education. It is a matter of sincere personal regret that the resignation of Professor Thacher and the refusal of Mr. Woodruff to be a candidate for re-election have terminated my official connection with them. I cannot better express my appreciation of the valuable services these gentlemen have rendered to the State than by quoting the following speech of Henry M. Cleveland, given in the House of Representatives when the resolution for the appointment of General Walker as the successor to Professor Thacher on this Board was pending—a resolution which was adopted unanimously:—

"The State Board of Education was organized in 1865 to take the place of the Board of Trustees of the Normal School, which consisted of one member from each county. Then as well as now, the cause of education was dear to the people of this State. It is a matter of vital importance who are the members of this Board. The State has been exceedingly fortunate in the choice of its members. Hon. George M.

Woodruff, well known as an eminent, efficient, and practical man, was a member from the beginning. Professor Thacher, of Yale College, who has now resigned, has also been a member of the Board since its organization, and these gentlemen have been serving the State without pay. In the place of Mr. Woodruff, who has served the State so long and so well, and who is constrained by the pressure of other official duties to decline a re-election, is the Hon. James C. Loomis, the President of the Board of Education of Bridgeport, who during the last year has accomplished a grand work in the re-organization of the schools of that city. Now General Walker, who was for several years at the head of the United States Bureau of Statistics, and during the last summer, the President of the Bureau of Judges at the Centennial Exposition, and who is a Professor in Yale College, is proposed as a worthy successor to Professor Thacher. He already has a national reputation and is widely recognized as one of the ablest men of his years in the State. I would emphasize my regard for Prof. Thacher, whom I venerate for his noble character, and honor for the valuable service he has rendered to the schools of Connecticut. Connected as he is with that great institution at New Haven, which is justly the pride of the State and the country, and burdened with his college duties as the Senior Professor, and next to the President, bearing the heaviest burden of care and responsibility, he has since 1865 been the active member of the Executive Committee of the Board of Education. It is an unprecedented thing in Connecticut that a man connected as he is, with the University, should come down to the work of supervising our Public School System—to the great work of popular education. He has always insisted that this was not any "coming down, that the interests of our Public Schools far transcend in their importance Yale College, and indeed all our colleges." I had the honor of serving with Messrs. Thacher and Woodruff for four years, and I can say that they carried this great work on their consciences. But now Professor Thacher resigns. Time wears on him as on all of us, and he feels compelled to cease his work as a member of this Board. All honor to that good and glorious man who has given so many years to the great cause of educa-

tion. He bids me say that his confidence in our present system is unshaken; that the present condition of education in Connecticut is eminently satisfactory, and that the people can do no better thing than sustain it."

STUDY OF ONE'S VERNACULAR.

In the "Course of Study" shown in the foreign educational exhibits, and generally adopted in the best schools of Europe from the Primary to the Gymnasium, Language Lessons hold a prominent place. Special and successful efforts have been made during the last four years in our Normal School, in our Teachers' Institutes and numerous town educational gatherings, to induce teachers to give greater prominence to our language and literature. The value of English as a culture-study has been a common theme in these gatherings. The motto of Pere Girard of Switzerland, "The mother tongue is the great educator," has been thoroughly adopted and widely endorsed by our teachers. The prominence given to the study of their vernacular in the schools of Switzerland is largely due to the influence of that eminent educator and divine. Well would it be for our youth, if some Pere Girard in America would as effectively ring the changes on this cardinal maxim. Although progress has recently been made in this direction, still, the study of our vernacular as a means of education does not yet receive its due recognition. Until recently, grammar was the only study in our curriculum teaching how "to speak and write the English language correctly." As ordinarily taught to children under twelve years of age, it has about as much adaptation to this its professed design, as the study of physiology and anatomy would have to swimming. Useful and essential as grammar is, it is a difficult study kindred to rhetoric and logic, and above the grasp of little children till language exercises have prepared the way for it. That preparation should begin the first day a child enters the Primary School, or rather it ought to begin in the home prior to school attendance. Prof. Whitney, in his excellent "Essentials of English Grammar," well says, "That the leading object of the study of English Grammar is to teach the correct use of English is an error, and one which

is gradually becoming removed, giving way to the sounder opinion that grammar is the reflective study of language, for a variety of purposes, of which correctness in writing is only one, and a secondary or subordinate one—by no means unimportant, but best attained when sought indirectly. It should be a pervading element in the whole school and home training of the young, to make them use their own tongue with accuracy and force; and along with any special drilling directed to this end, some of the rudimentary distinctions and rules of grammar are conveniently taught; but that is not the study of grammar, and it will not bear the intrusion of much formal grammar without being spoiled for its own ends. It is constant use and practice, under never-failing watch and correction, that makes good writers and speakers; the application of direct authority is the most efficient corrective. Grammar has its part to contribute, but rather in the higher than in the lower stages of the work. One must be a somewhat reflective user of language to amend even here and there a point by grammatical reasons; and no one ever changed from a bad speaker to a good one by applying the rules of grammar to what he said."

Professor Greene says, "It is the use of language which chiefly concerns the learner; its principles will gradually unfold themselves." Professor Hadley says, "The ability to parse and analyze sentences is no guarantee of ability to successfully use language." The best preparation for good writing is good talking. Every school exercise, even the dryest drill in arithmetic may be a language exercise, if the class are always kept on the alert to notice (and correct when at its close the corrections are called for) any and all errors in pronunciation or grammar. If a pupil can give an answer in fewer or better terms than those used by a classmate, let him always be encouraged to do it. Thus a generous and healthful rivalry may be awakened in the use of terse and felicitous expressions of thought. The habit of using correct language thus formed in conversation and recitation will lay the foundation for the higher work of composition. In the schools of Germany and Switzerland, the exercises are far more conversational than with us. The text books are thoroughly studied by the

teacher as well as by the pupils, and in all recitations, except in ancient or modern languages, the teacher has no text book in hand. To use one would be a confession of ignorance or want of preparation of which a German teacher would be justly ashamed. Hence, in the recitation, there is more of direct contact of mind with mind, of question and answer, of inspiration and correction than with us. The best American teachers now adopt this method and with good results.

Archdeacon Hare says, "A man should love and venerate his native language as the first of his benefactors; as the awakener and stirrer of all his thoughts, the frame and mould and rule of his spiritual being; as the great bond and medium of intercourse with his fellows; as the mirror in which he sees his own nature, and without which he could not even commune with himself; as the image in which the wisdom of God has chosen to reveal itself to him."

If this be true of one's vernacular generally, whether Italian, Spanish, Portuguese, French, German, or other, how much truer is it of the English tongue. If our youth can be led to a just appreciation of this their richest heritage, it will give new zest and interest to their study of our language and literature. That it is the noblest language spoken on the face of the earth is not a conceit of Americans and English. The most eminent foreign scholars bear witness to its unequalled richness. The distinguished German scholar, Jacob Grimm, says: "The English language possesses a power of expression never attained by any other human tongue and may with good reason call itself a world's language. It seems chosen like the English race to rule in still greater degree in all corners of the earth. In richness and flexibility, no modern tongue can compare with it, not even German, which must shake off many a weakness before it can enter the lists with the English. Its altogether intellectual and singularly happy foundation and development have arisen from a surprising alliance between the two noblest languages of antiquity, the German and the Romanesque—the former supplying the material—the foundation, and the latter the abstract notions." M. De Condolle says: "The sovereignty of the world is hereafter to belong to the English language. It is probable that in eighty years, it will

be spoken by over eight hundred millions of people." Bayard Taylor may be cited as a competent witness to its recent diffusion. "The spread of the English language within the last twenty years is astonishing, resulting both from the number of English and American travelers who visit the East and the use of the language by the travelers of other nationalities. French, which until within the last few years was indispensable, has been slowly fading into the background and is already less available than English for Italy and all the Orient. The simple, natural structure of the English language undoubtedly contributes to its extension. It is already the leading language of the world, spoken by double the number of the French-speaking races, and is so extending its conquests year by year, that its practical value is in advance of that of any other tongue." Many of our scholars will live to see the day when the English-speaking peoples, now little less than one hundred millions, will be more than doubled in numbers.

The study of English in schools on the Continent is rapidly increasing and is regarded by many as an essential part of a finished education, and in this respect is gradually supplanting the French. Except the Chinese, whose syllabic character forbids its spread, no other language was ever so widely used. As the scholars of the world are now more generally learning English than any other modern tongue, it is destined to become the leading medium of learned intercourse.

It is a matter of just state pride that the great Lexicographer who more than any other one in modern times has shaped and developed the English language, is a son of Connecticut. There never before has been a great nation using one language without dialects. Noah Webster has unified the language of this otherwise polyglot people. The circulation of his works shows the extent of his influence. The aggregate sale of his spelling-book has been between fifty and sixty millions. Notwithstanding the multitude of new spellers, the sale of this exceeds one million copies annually. More than thirty thousand copies of the Unabridged Dictionary have been placed in the public schools of the United States by State enactments or School officers. Of the Unabridged and Royal Octavo Dictionaries more than half a million copies have been sold. For many

years, the other abridgments have had an annual sale of over one hundred thousand copies.

The English race and the English language are to play the most prominent part in the civilization and christianization of the nations. The spread of this language and the increase of this race in numbers, wealth and influence, is one of the marvels of the age and unparalleled in history. The expansion of the Saxon race, like the growth of the oak, has been the work of time, but it is for all time. It has colonized all climes, its language is spoken round the world, and far more than any other, by all races, its commerce girds all seas and sweeps all oceans, so that literally the sun never sets on the English-speaking peoples.

Commerce as well as colonization is a grand propagandist of language. The Saxon tongue is domiciled in every center of trade. Wherever floats a Saxon keel, there float with it Saxon words and commercial terms. It has permeated Japan and is entering China. It has spread through Siam and rules in India, for there English is already the official language, and the ambitious natives who aspire to official positions are thoroughly trained in the English language. The extraordinary exhibits at the Centennial by South Australia, Victoria, Queensland, Tasmania, New Zealand, Cape of Good Hope, Ceylon, Singapore, the Bahamas, British Guiana, Trinidad, the Gold Coast, and the Orange Free State, show, not only how lavish nature has been in her gifts to them in soil, climate, productions and marvellous mineral wealth, but also how rapidly barbarism is receding before the push, enterprise and energy of the Saxon race now dominant in all those vast and varied territories. The vigorous youth of these wonderful colonies presages a glorious future for wealthy, populous and English-speaking confederacies. These facts in regard to the character of our language, its rich vocabulary and wealth of expression, its wide diffusion and the possibility of its ultimately becoming a universal language and thus fraternizing the world, may be fitly used by teachers to awaken a greater interest in its study.

In the primary school, great prominence should be given to the first exercise of conversation named below. Topics of con-

versation are endless, and for little children, the commonest are the best, such as familiar animals, objects, stories, incidents and pictures. Descriptions of scenes and of scenery, and narration of events and experiences are more difficult and also more useful, requiring careful perception and accurate memory. Children are always interested in relating what occurred in their own excursions, picnics, visits or journeys—their trips in hunting, fishing, gathering wild flowers, berries, or nuts, their rambling in the woods or climbing the hills and mountains.

The following bare outline will be intelligible to those who have heard the full discussions given with blackboard illustrations at our Institutes.*

PRIMARY COURSE.

1. Conversation. 2. Printing words on the slate or board. Printing should be discontinued as soon as pupils can use the script letters. 3. Object Lessons. Their linguistic bearing suggests one of their most important results. 4. Applying fit adjectives to nouns. 5. Selecting the most characteristic adjective. Apply, for example, to the fox the one word in our language which most fitly characterizes this animal. 6. Combining *all* fit adjectives with some noun in a sentence and yet avoid redundancy. 7–9. Mottoes—oral, printed, written. 10. Require all answers given by pupils to be in complete sentences. 11. Ask no questions which can be answered by "yes" or "no." 12–14. Dictation for repetition; oral, the same printed, then written. 15. Description of geometric forms. 16–17. Two or more words given, to form a sentence containing them—oral first, then written. 18–20. The reading lesson—oral, printed, written. The pupils should state in their own language the subject matter of the reading lesson. 21. Pointing out resemblance and difference in things. 22–23. Describing pictures as seen, oral and written. 24–25. Describing pictures as remembered, oral and written. 26–27. Describing pictures as imagined, oral and written. 28. Descriptions of natural scenery. For example, describe the landscape which pleased you most. 29. Description of one's town. Give its location, size, connections by railroads,

* These Language Exercises are reprinted from a former Report, with additional comments, at the request of many teachers.

&c., streets, productions, people, business, &c. 30. Description of one's county. 31. Description of one's State. 32. Description of one's country. 33. Questions.

The teacher should not directly tell a child anything which he can be stimulated to find out by his own senses or reflection. A single fact or truth which he discovers for himself, is worth a thousand which he passively receives. The design of the exercise, under the head of questions (number 33), is to lead the child carefully to observe and then describe his perceptions. One question, for example, may be: What is your pet animal? If the child answer, a dog, then would follow others, as: Why do you like him? What kind of a dog is he? and others about his name, coat, color, size, disposition, intelligence, tricks, and the ways in which he is useful. What is the strongest animal? How does it use its strength? What is the most useful animal? In what ways is it useful? If the subject be flies—the questions might be: Do they bite or sting? When and where are they most abundant? What do they like best to eat? What is their greatest enemy? What lesson does that enemy teach us? How do they walk on the window or the ceiling? Taking the microscope (which should be on every teacher's desk) as you examine the flies' eyes, how do they compare with yours? Are flies of any use? Of what use? Should you say they are of no use, even if you could discover none? Is anything created in vain? These examples show what a variety of questions may be put in regard to the most familiar objects, which, while they tell him nothing, lead the child to discover and describe much. Once started thus on lines of observation and reflection, he learns how to question nature and becomes an independent observer.

INTERMEDIATE COURSE.

34. Supplying simple predicate to given subject. 35. Supplying simple subject to given predicate. 36. Supplying enlarged predicate to given subject. 37. Supplying enlarged subject to given predicate. 38. Constructing a sentence containing a phrase. 39. Changing the adjective into a phrase. 40. Changing the adverb into a phrase. 41. Changing the phrase into an adjective. 42. Changing the phrase into an adverb. 43–44. Stories by teacher, oral and written. 45–46.

Stories by pupils, oral and written. 47. Committing selections to memory.

The English language and literature open a rich and large field of culture for the children in our schools. Nothing tends more to stimulate and liberalize the juvenile mind than the study of our best vernacular classics. Some choice selections, though at first it be but a stanza, couplet, or even a single line, or motto, should be daily memorized in our schools. The gems thus garnered would henceforth be both standards of taste and treasures of thought. This practice, common in Switzerland and Germany, is there made an effective means of liberal culture and of training the memory. One does not fully appreciate the gems of literature till they are memorized. The children in the German schools commit to memory vastly more than American pupils, who are often crippled for life by this neglect. In the delusive and premature attempt to cultivate the reason only, we stunt the memory. This faculty changes with one's years and attainments. In early life, the memory is circumstantial, and naturally grasps items, details, words and language, and easily learns to memorize poetry and prose. This knack of facile memorizing must be acquired early or never. In later years, while the memory grows more tenacious of principles, comprehensive facts and general truths, it retains minutiæ with difficulty. The art of memorizing, early acquired, follows one through life, and facilitates all later acquisitions and higher studies. German children memorize so much early that they afterwards memorize easily. American youth learn so little by heart that the necessary *knack* is not gained. Hence "declamations" are so much dreaded, because of the tough tug of memorizing a page or two of prose or poetry which a German pupil would commit in a few minutes, without conscious effort and with real pleasure. Having long advocated these views, there is a satisfaction in finding them confirmed by hundreds of teachers and parents who have put them to the test of successful experience. I confidently advise all parents and teachers to thoroughly try the experiment of encouraging young children to learn stories, songs, hymns and verses. This is done in the Kindergarten schools, not in the form of tasks, but in connection with their singing, their

plays, and those attractive occupations which develop a verbal memory of great value in after life.

ADVANCED COURSE.

48. Resemblances and differences in words. 49. Resemblances and differences in persons. 50. Resemblances and differences in authors. 51. Resemblances and differences in nations. 52–53. Real journeys described, oral and written. 54–55. Imaginary journeys described, oral and written. 56. Letter-writing. 57. Amplification—enlarging from outlines. 58. Condensation. 59. Business papers. 60. Compound sentences. 61. Reducing compound to simple sentences. 62. Complex sentences. 63. Reducing complex to simple sentences. 64. Converting simple into complex sentences. 65. Reducing long sentences to their simplest form. 66. Expanding simple sentences into longer ones. 67. Abbreviation. 68. Turning direct into indirect quotation. 69. Turning indirect into direct quotation. 70. Variation—*a.* Changing the active to the passive form; *b.* Exclamatory form; *c.* Interrogative form; *d.* Use of synonyms; *e.* Use of contraries; *f.* Substituting negative for affirmative form. 71. Changing poetry to prose. 72. Changing prose to poetry. 73. Outlines and abstracts. 74. Diaries, real. 75. Diaries, imaginary. 76. Debates, oral and written. 77. Editorials. 78. Criticism of books. 79. Sketches—biographical, etc. 80. Outlines of historic periods. 81. Essays.

Language is the grandest product of the human mind, at once the means and measure of its growth and the greatest instrument of human investigation and progress. It is the index alike of individual and national character. The refinement of the Greeks is still told by their tongue. Now as of old, whether barbarian or Greek, boor or scholar, one's "speech bewrayeth him." Language has a moral bearing. Words influence as well as indicate character. A slovenly style, like a slatternly dress, suggests and promotes want of self-respect, if not purity, and tends to demean and degrade. As "evil communications corrupt good manners," so a diction terse, refined, and rich in noble thoughts fosters every virtue. Or to put this gem in its own sacred setting, "A word fitly spoken is like apples of gold in pictures of silver." Martineau happily

phrases a kindred thought, "Words are great powers in this world; not only telling what things are, but making them what else they would not be." Trench well says: "Language is the amber in which a thousand precious thoughts have been safely imbedded and preserved."

A good workman must be master of the tools of his trade. The teacher's tools are both words and ideas. But language is the vehicle as well as the vesture of his thoughts. True, thought is first in the order of time and of importance, but to secure the development of thought through expression is the daily duty of the teacher. Beginning in the primary schools, the first aim should be the acquisition of ideas by objects, and then their fit utterance by words. Strictly speaking, things come before names and ideas before words, but practically they should be conjoined, for language is the casket which holds the ideas. The child should be treated as an active as well as a receptive being, one that can give as well as receive. He instinctively longs to speak as well as to hear. One of his earliest needs is aid in utterance. But repression rather than expression is often the result, if not the aim in school. The talking is by the teacher, where the pupil should first see and then describe. Instead of explaining an object to his pupils, the language of the teacher should be—"Children, examine carefully this object and tell me what you see." Every discovery thus made facilitates others, and forms the habit of observation and description. Every fit description given helps in future command of language and fixes the facts described in the memory. So also, the apt utterance of emotion intensifies the feelings and quickens the processes of thought. To check loquacity or verbiage the motto of every school should be *the maximum of thought in the minimum of words.*

With young children, conversation should be one of the *attractions* of the school, as it is of the well-regulated home. Conversation should be treated as an art, and should therefore be cultivated with the zest of the amateur in painting and sculpture. Carefully practiced, it becomes a prime educator, awakens curiosity, sharpening perception, cultivating attention, and quickening both the memory and imagination, developing versatility, tact, and vivacity. To teach how to talk well

should be the constant aim of both home and school training. Listening well is the condition of answering well. To attend carefully, to question to the point and respond aptly, disciplines every faculty. Just here is one of the greatest deficiencies of American schools compared with the best schools of Switzerland, Germany, and England. With us, nothing of equal importance is so underrated as the culture of the expressive faculties. The noblest of all arts, in reference to the range and grandeur of its subjects, the greatness of its influence, and brilliancy of its victories, is the art of speech. The leaders of men in every age have gained their wide sway by this divine gift of speech. Luther's words were half battles." "Webster's words were thunderbolts." The greatest triumphs of truth are won by the tongue. Though it "is a little member" it "boasteth great things," or as Luther puts it, "accomplishes great things." "Magna exaltat," as Bede says.

The culture of expression includes, as well as accompanies, that of all the other faculties. Perception, conception, and memory, fancy and imagination, the taste and the sensibilities, the powers of imitation, personification, and representation, should be trained by and for expression, for without it, one would be mute and unintelligible, and all these powers imprisoned within the soul would droop and decay. The soul, like a lake, grows stagnant without an outlet. Thought itself falters, when language fails. A linguistic taste favors that love of literature and fondness for books which like a divine light will illumine the scholar's daily life.

Emotion is the inspiration of language. It has an irrepressible tendency to expression, kindling imagination and giving force to words and eloquence to speech. That "crime against a human soul," as Professor Kauerbach calls the history of Kasper Hauser, illustrates the sad effects of long isolation and enforced silence.

Character is moulded more by feeling than thinking, or rather, by thought only so far as it awakens emotion and thus moves the will. All men, even the most intellectual, are controlled more by the sensibilities than the intellect. Right thinking should therefore aim at the higher end of right feeling, and then the right expression of that feeling by words or acts.

It is not truth alone which our nature craves—truth limited to the intellect, but truth so vitalizing the heart as to move the will and mould the character. To know the truth is indeed well, but to *feel* it is still better. Truth never triumphs till the perceptions of the intellect lead to the loving apprehension of the heart.

Emotion is the celestial fire of all the poetry and eloquence that have ever swayed the minds of men. The happiest efforts are never the product of unimpassioned intellect. The sensibilities form the electric apparatus that draws forth the latent heat to kindle the life spark of thought and the fire of genius. "While women may feel, it is the glory of man to think and reason," is the shallow sneer of the cynic. This notion is common as it is mischievous. Our educational processes aim too *exclusively* to train the intellect and ignore the sensibilities. The two have a mutual relationship and reciprocally influence each other. Neither can reach its full strength and stature alone. Even the lower emotions, such as the grand, the awful, the terrible, the ludicrous, the disgusting, and especially the beautiful, feed the activity of the mind. Still more our social, moral, and religious affections, the emotions of gratitude, reverence, humility, and love are to the mind what air is to the lungs. "By our minds alone, we are mere spectators of the machinery of the universe; by our emotions, we are admirers of nature, lovers of man, adorers of God." The culture of these sensibilities, therefore, is essential to give man individually or socially the highest refinement and power.

CONNECTICUT EDUCATIONAL EXHIBIT.

The Connecticut Educational Exhibit, considering the amount appropriated for this purpose—only eight hundred dollars—exceeded my expectations, and certainly brought no discredit to our honored State. The cost was less than that of any other State that made an educational exhibit, and less than one thirtieth of the expenditure of Pennsylvania for the same purpose. It is a matter of congratulation that with such very limited means, results so creditable were secured. No selections were made from the pupils' work sent to the State Board of Educa-

tion for the Exposition. Every scholar who prepared any of these papers could have the satisfaction of comparing his work at Philadelphia with that of thousands of others. This was the only fair course, especially as our object was not to show a few choice specimens, but rather to illustrate the actual condition and work of our schools. The preparation of this work gave a healthy stimulus both to teachers and scholars. Some entire schools and many pupils surprised their teachers by the excellency of their papers. They attracted the attention of the Commissioner of the French Government, who employed copyists for many days in transcribing the examination papers and other work in the Connecticut Educational Exhibit for his Report to the French Government. The material has been brought to the old State House in New Haven. With the consent of the contributors, it will be permanently kept in the office of the Board of Education in the new Capitol, when that is in readiness.

Hartford contributed more fully to our Exhibit than any other town in the State, sending seventy finely bound volumes of scholars' work, besides photographs of her School Houses. A Special Award was given to Hartford for "Pupil's work and for the valuable and interesting exhibit of its School System." Another Award was given to the State Normal School "for the general excellence of the pupils' work shown, evincing good instruction and results." The following Award was given to the State Board of Education "for the valuable and interesting exhibit made of the rich results of Education in the Common Schools and higher Institutions of the State, also for the successful efforts of the Board to afford practical instruction in the Metric System of Weights and Measures in all the Public Schools."

Yale College was well represented by its authorship, though the College itself was not in any way responsible for this exhibit and incurred no expense in its preparation. It was the work of the Sons, not the Alma Mater, and on the book cases was therefore inscribed "*In Matris suæ honorem filii amantes.*" It was such a collection of the Works written or edited by the former members of Yale College as the Authors and Publishers consented to furnish. None were taken from the College Library,

or furnished by the government of the College. The fact that this collection, though necessarily incomplete under these circumstances, should have included more than eleven hundred volumes and filled book cases nine feet long and sixteen feet high, illustrates the value of liberal culture and its influence in the authorship which it prompts, and does honor to the sons of Yale, to Connecticut and to the country, for books have been a leading agency in forming American character and history, and "the chief glory of every people arises from its authors." Wesleyan University furnished excellent photographs of their buildings, and Trinity College sent the "studies" of their beautiful buildings as now planned.

Our Exhibit was worthy of a free people who could afford to furnish a just basis of comparison, conscious of defects and not hiding them, and mindful of excellences which needed no heralding. Compared with European schools and exhibits, some of our defects were made conspicuous. As it is always more profitable, if less agreeable, to understand our deficiencies than our excellencies, I have dwelt mainly on our imperfections and the lessons we may and ought to learn from European schools. It would have been easy to show the points of superiority in American schools, among which I should enumerate: 1, School architecture; 2, School furniture; 3, Better and more ample black-board surface; 4, Ventilation of school houses; 5, Mental combinations in arithmetic; 6, Reading. The Americans are better trained in reading, and as a matter of fact read more books and papers than any other people. The Lord Bishop of Manchester says, "The Americans are the most generally educated and intelligent people on the face of the earth. They are emphatically a reading people, and show great avidity for news and are posted up in current events. The number of daily newspapers in the United States is quite extraordinary. Everybody reads these papers." 7. Map-drawing. The Map-drawing from memory by American pupils as shown at the Centennial, especially in the New Jersey Exhibit, was superior to anything I saw in any schools in Europe. 8. Free schools; 9. Coëducation of the sexes; 10. Female teachers. In Germany the school-*master* is still the general and almost exclusive term. 11. Better education of girls; 12. Better

incentives to study; 13. Better methods of religious instruction; 14. Better text-books, and with superior illustrations; 15. More school and public libraries. My limits permit no amplification on these points. The outcome of all is greater independence, energy and enterprise, self-reliance and self-command, and more of genuine manhood than can be found among any other people. When comparing the aim and influence of both the educational and civil institutions of Europe and America, Professor Agassiz often said: "After staying twenty-five years in this country, I have repeatedly asked myself what was the difference between the institutions of the old world and those of America; and I have found the answer in a few words. In Europe everything is done to preserve and maintain the rights of the few; in America, *everything is done to make a man of him who has any of the elements of manhood in him.*"

As the scholars' work is to be kept for permanent exhibition, the following from the Hartford School Report fitly concludes this article. "It was announced by the Secretary of the State Board of Education, in a circular published December, 1875, that the public schools of the State would be called upon to prepare school work for the Exposition at Philadelphia. His views were set forth in a pamphlet, copies of which were sent to all the Boards of School Visitors throughout the State, containing a programme for their adoption and guidance.

After mature deliberation by this Board, aided by the counsel and coöperation of the District Committees, and the Principals of the Schools, it was decided to adopt the schedule of the State Secretary, and its requirements were faithfully and conscientiously observed in the preparation of all the work for the Exposition. The earnest spirit and intelligent zeal with which both teachers and pupils entered upon and prosecuted their work was a sure guarantee of the success which crowned their labors. It was intended to represent fairly specimens of the work performed by the pupils, generally by classes, in the principal branches taught in the grammar and intermediate departments of all the schools; and they will be regarded, we believe, by disinterested observers and experts, as of much merit, and entitled to high praise, both as to their positive as well as relative merits.

At the outset, it was apprehended that the diversion of the minds of the pupils from their accustomed pursuits, added to the time which would necessarily be given to this work, might seriously interfere with their progress in the prescribed course, and possibly prevent some who were preparing for the High School from fulfilling the conditions required for admission. The result, however, proved our fears to be groundless; not only so, but the stimulus created among the pupils in preparing for and executing their centennial work, gave a decided impetus to their efforts in all their studies, and enabled them to perform, and in a highly satisfactory manner, all the usual labors of the year.

A feature in the returns made by this town to the Exposition, not called for in the schedule, was the furnishing of a set of photographs, suitably framed, representing all our school structures except two small, one-story school houses. Not only were the exteriors of these buildings successfully exhibited, but the interiors and elevations of several, to a greater or less extent; showing the character of the furniture, and the general arrangements and appearance of the rooms; the pupils, also, were in some instances taken seated at their desks.

They make a very fine appearance, with which Hartford may well be satisfied. Complete models of the school buildings of several different countries, were shown at the Exposition. Some of the best of these were examined with care, but none embodied ideas new to us, nor were their arrangements in any respects superior to several of our own.

It would have added much to the value of this exhibit, had it been possible to show, with clearness and accuracy, the methods adopted for warming and ventilating these buildings —both of them matters of the highest importance—but as this would have required description in manuscript to render them intelligible, it was deemed best to omit them. Large and very handsome exhibitions were made by some countries, among them our enterprising neighbor, Canada, of forms, models and drawings, for use in the school room, by means of which, the eye may be made greatly to assist, and in a measure, supplement descriptions, whether given in the text books or by the living teachers. These agencies are much more extensively em-

ployed abroad than among us, and might, with great advantage, be more generally introduced here.

The material sent from Hartford to the Exposition, from the High and Public Schools, is contained in seventy volumes, substantially and tastefully bound, each so lettered as to indicate its subjects, and the district and school represented, and by means of an index, the page at which the commencement of each subject may be found. They make, together, a very handsome, and even imposing appearance, and were prepared at a very small expense to each district. A brief history of our school system, from its origin in 1638, three years after the first log house was built, to the present time, the courses of study at the High and Public Schools, with the text books now in use, calendar of the current year, and the time per week devoted to each study, by classes or departments, all are given, in print, and are of ready access when required. Official statements, so far as they relate to the means or agencies of instruction among us, were politely furnished on application, for our use, by the Theological Institute of Connecticut, State Library, Watkinson Library of Reference, and Young Men's Institute; these are also in print, and will be of easy access when wanted.

It is the purpose of the State Board of Education to return the scholars' work at the close of the Exposition to their office at New Haven, and as soon as the new State House is completed, locate it permanently therein. This mode of disposing of it has many advantages over that which contemplates its return to those towns and cities from which it came, and to which it may, perhaps, be said to belong; two principal ones are the following:

First, it renders certain its preservation. It is of much value, and possesses special interest to all in any way concerned in educational matters at present; and this will continue to increase with the lapse of time, until, at the close of the coming century, this work will again be brought forward, to be critically examined anew, quite likely with a greater interest than we now regard it, heightened by an intense curiosity to contrast and compare with it, the work, as well as the entire system of school instruction, that will then prevail.

Second, it not only preserves for the long distant future this precious material, but makes it available also for appropriate

reference throughout the period intervening, both to the people of our own and other States and lands, who may desire to examine it.

These volumes, therefore, should not be scattered through the State, many of them soon to be lost, and some of the most important uses they are admirably adapted to subserve, partially, if not wholly, defeated."

ACCURACY IN STATISTICS.

In preparing the statistics which accompany each annual School Report, special care is taken to prevent and eliminate errors. It is somewhat difficult to ascertain correctly the number of different scholars registered in the year. This difficulty results from the registering of the same child in more than one department of the same graded school, or in two or more schools of the same town; and sometimes from a change of residence from one town to another during the school year. Special attention is called to the following "direction" given in all the School Registers provided by the State and used in nearly all public schools. The coöperation of teachers and school officers is most earnestly solicited in carrying out this provision, and thus effectually preventing the counting of the same pupil more than once in any town.

"IF SCHOLARS ARE TRANSFERRED DURING THE TERM, OR YEAR, FROM ONE PUBLIC SCHOOL TO ANOTHER IN THE SAME TOWN, OR FROM ONE DEPARTMENT TO ANOTHER OF THE SAME SCHOOL, A LIST GIVING THE NAMES OF SUCH CHILDREN SHOULD BE FURNISHED TO THE SCHOOL VISITORS, THAT THE SAME SCHOLAR MAY NOT BE COUNTED TWICE BY THEM IN THEIR ANNUAL RETURN OF THE WHOLE NUMBER OF SCHOLARS ATTENDING SCHOOL."

This direction has been printed in all the Registers every year since 1868, or as long as the return of the number of different scholars has been required. For several years there have also been two pages of the School Register designed expressly to contain "A record of the number of *different* scholars registered in the school year." If these pages are properly filled, and the direction above quoted is enforced,

the School Visitors, having the Registers duly returned to them as the law requires, have the means of securing almost perfect accuracy in this part of their reports. Very much necessarily depends upon these officers, and as a class they are believed to be exceedingly careful and conscientious in preparing their yearly returns.

The difficulty upon this point is not peculiar to Connecticut, but is encountered in every State which attempts to ascertain how many of its children attend its public schools. In no other State is greater care taken to secure correct returns, and there is no reason to suppose that greater accuracy is elsewhere attained.

The reckoning of such single holidays as occur in term-time among days of actual school is only the continuation of a long established usage. Until recently the average length of schools in the several towns was reported either in months or weeks, but it is now given, with increase of accuracy, in days. When it was given in months or weeks, no allowance was made for such single holidays as might occur in term-time. For instance, a teacher might be employed for a term of four months, or sixteen weeks, beginning the second Monday of November. Such a term would include *three days* which *might* be holidays; Thanksgiving, Christmas, and Washington's Birth-day. But in reporting the length of the term by months, or by weeks, no deduction could appear on account of any of the holidays. Why then should any deduction be made now that the length of terms is reported in days?

But in fact, a large and increasing number of schools so arrange their terms that the Fourth of July and all the days above named, except Washington's Birth-day, occur in vacations. Then further, some districts do, and others can, in engaging teachers, specify the number of actual school days which the teacher is to devote to the duties of the school room, exclusive of holidays. Where this is done, the question as to reckoning holidays a part of school time is precluded. But where no such arrangement is made, there is manifest injustice in requiring a teacher to "make up" holidays, whether one, two or three, as is sometimes done. The expense for board does not cease on such days, and the teacher would very pos-

sibly prefer the ordinary duties of school to the enforced idleness of a holiday.

The usage long established in this State prevails also in other States. In most, if not all of them, these holidays that occur in term-time are accounted a part of the term. Unless the same method is followed in this State, an unjust discrimination will be made against Connecticut. In the Report issued yearly by the National Bureau of Education, the several States are brought into comparison in this, as in several other particulars. It is but just to Connecticut, as compared with other States, that the method so long and so generally in use should be retained.

The question has frequently been asked, "What are the legal holidays for schools?" The statutes of the State give no answer to this question. The holidays there provided for, relate to the business of the Banks and the Courts. All beyond this is a matter of usage which varies widely in different places and times—or as regards schools it may be regulated by the local school boards. Since there is no general law, any town, or any Board of Visitors, is at liberty to make its own law on this subject.

With possibly one or two exceptions, a larger portion of our population are employed in manufacturing than in any of the other States. An important result is secured if the children of the poorest operative attend school even three months. It should not therefore be set down as of course a disparagement of any manufacturing town or county that its average attendance is low, since this fact may grow out of the stern necessities of those who cannot afford to school their children all the year. The law requires attendance but three months. The greater the number who under its coercion attend three months only, the less must be the average attendance. The more rigidly the law of obligatory education is enforced, and the greater the *aggregate* attendance, the less of course will be the average attendance. In a manufacturing State especially, the figures of average attendance ONLY do not make a fair exhibit of its school work. The fact that the average attendance last winter as compared with the number enumerated was fifty-five per cent. by no means indicates that forty-five per cent did not

attend school at all. As the average length of our schools is nearly nine months, those who attend but three months of course greatly lessen the average attendance.

There is some reason for thinking that the yearly returns of enumerated children make the number too large. There are evident motives for making it as large as possible, since the amount of money received from the School Fund and the State Appropriation is determined by the enumeration. Many districts have strong inducement to return a number sufficient to entitle them to thirty weeks school, and not a few district committees have but little knowledge of the law under which the enumeration is made. Some provisions of the law may seem to admit of more than one interpretation. The section which requires the enumeration speaks definitely of persons "over four and under sixteen years of age." These words can have but one meaning. But in the certificates to be returned by school officers the language is, "persons between four and sixteen years of age." These words are unquestionably intended to have precisely the same meaning as those just quoted. But they may be construed, with some show of reason, as including persons not over seventeen years of age. If so construed, they add, improperly, to the number enumerated. Where any doubt is supposed to exist as to the meaning of a law, men readily accept that interpretation which tends to their advantage. It would not be singular, therefore, if the language of the certificate, as given in the Statutes, were sometimes so interpreted as to increase essentially the amount of public money apportioned to a town or school district.

But the official enumeration is the basis upon which the percentage of registration is computed. If that enumeration is too large, any percentage based upon it is too small. And if it be supposed that the whole "number of different scholars registered in the year" is really somewhat less than the returns show, the question may fairly be asked whether the number enumerated should not be diminished in about the same ratio. If accurate returns would require this diminution, then the percentage of children registered, as now given, is substantially correct. It is worthy of consideration whether the money from the State Treasury should not be apportioned according to attendance.

UNION OF DISTRICTS.

Observations both abroad and at the Centennial confirm my convictions in favor of the Union of Districts. All the countries making an Educational Exhibit at Philadelphia have the union plan. The experience of our country as well as that of Europe is against the District System. The division of many of our towns into small independent districts seems inexplicable to educators abroad. It was a relief to be able to say to them that the country as a whole had abandoned the District System, and that in the few States where it still survives its main props are prejudice, and so-called conservatism, and that these are manifestly decaying. Instead of centralizing power as is really done in the "one man power" of the District Committee, the Union System is truly democratic, equalizing the expenses and advantages of the schools, relieving the poorer districts, securing more permanent teachers, and promoting harmony, efficiency, and *economy* in the management of schools. On this question facts are better than theories. No town in Connecticut within my knowledge has witnessed so great and general improvement of its schools in a single year as Bridgeport. This town wisely elected a non-partizan Board of Education. The honored President of the Board reluctantly accepted the position, and with the express understanding that he should resign as soon as the new system came into working order. He has, however, become so thoroughly interested in the great work progressing there, as to encourage the hope that his valuable services may be long continued. To show the economy as well as efficiency of the Union System adopted there last year, I quote the following from the Bridgeport Standard of February 20, 1877:

"We invite attention to the following facts and figures in relation to our schools and the present system of management: The estimates by the Selectmen and School Visitors for expenses of the Public Schools for the coming year are $49,000. The estimates by the School Districts last year for the same purposes were $55,592. To the first sum should be added $3,000 additional for repairs, school books, stationery, evening school, etc., making $52,000. To this is further added

the following sums paid by the Selectmen: Interest on mortgages, $3,600; insurance on school building, $500; rent, rooms of the Board, etc., $300, or a grand total of $56,400 for school expenses for 1877–8. The actual expenses last year were $68,511.47, and as the actual expenses this year will probably come within the estimates, a saving of *nearly thirteen thousand dollars* is shown. But this does not tell the whole story, although it is an item to which the Board and the friends of the new system can point with commendable pride, and which the tax-payers of the town will properly appreciate. Besides this we have unquestionably better schools, we have a High School thoroughly established and equal, so far as its operation has gone, to any other in the State—all *included in the above estimate of expenses;* we have frequent visitation by school visitors and as a result a careful and constant preparation for inspection and a higher *morale.* The rooms of the Board are a most excellent feature of this system, also, for there may be seen at all times the accounts of the schools, kept by a regular system of book-keeping, showing every dollar received and expended, and also such a classification of accounts as leaves the affairs of each school open for public inspection. This is an entirely new feature, and one practically impossible under the old system, where only the different committees knew of these affairs, and were in effect responsible only to themselves. Any tax-paying citizen can inspect these accounts at any time, and can easily discover any fact which he desires to know concerning the financial management of the schools. Another feature of the present system is the annual report of the Board, made at the close of the school year, in the Fall, which will lay before the public all the details of school management. No such thing was practiced under the old system. The amount of work done by the members of the Board is greatly increased, as can easily be seen, but the harmonious and successful working of all parts of the system compensates abundantly for the increased labor. The rules and regulations of the schools and the plan of study marked out have been made public in a pamphlet published by the Board, which is attainable by all citizens, and therein may be seen a very perfect system of rules and a very thorough, high and excellent course of study. The

people should understand the importance of frequently visiting the schools and of testifying by their actual presence an interest in their welfare and success. Those parents who do show this interest generally find themselves agreeably disappointed at the efficiency, good conduct, excellent appearance and evidences of thorough system everywhere manifested. We have no reason now to be at all ashamed of our schools or our school system, and do not fall behind other and smaller towns in these matters. We can refer to our schools and invite inspection of them from outside the city with confidence and pride, and there is no reason why this admirable state of affairs should not continue to improve in the future. The attendance of scholars is much larger than is usual at this season, and the new system works favorably in securing the largest possible number of pupils. Besides the regular day schools, there has been large success in the evening schools, and that for the teaching of mechanical drawing, which have all come under the same general management. Much good has been done by these schools, and they supplement the day schools very fully, giving instruction to those who could not otherwise attain it. The members of the Board, Superintendent of Schools, and the citizens generally are to be congratulated on the present gratifying condition of the schools."

VILLAGE IMPROVEMENT.

Public interest in the subject of rural adornment is still increasing. The plan for centennial tree-planting proposed in March last was received with unexpected favor, and the two hundred dollars offered in small prizes for its encouragement was all claimed. As the tree-planting in this state last spring exceeded that of any former ten years, many hitherto leafless and unsightly school lots will in due time be adorned by maples, elms, ash or other trees. The confidence that thousands of children will hereafter enjoy their shade is ample compensation for my part in this work. In future visits to the towns of Connecticut, I shall take special pleasure in meeting and greeting my young tree-planting friends. This good work should continue till not a school-house, dwelling or street

is left without the simple and grand adornment of shade trees.*

The growing interest in village improvement during the last year has resulted in the organization of many new associations for furthering this work. A little reflection and foresight will show that no rural community can afford to be without such an association, whose influence, as already seen in many towns, reaches far beyond the first intention. It includes not only *public* ways, securing better roads, streets and parks, school-houses and churches, but extends its influence to private grounds, introducing new shrubbery, hedges, lawns, flower-plots, shade trees, improved fruit trees, better style of building and painting houses, the adoption of neutral tints in place of glaring white, or still worse, the old red. A good example is here peculiarly fruitful, and one improvement serves as a precedent for many others, and the happiest result of all is to fill a town with beautiful homes.

It is a hopeful sign that modern civilization relates specially to the homes and social life of the people, to their health, comfort and thrift, their intellectual and moral advancement. In earlier times and other lands, men were counted in the aggregate and valued as they helped to swell the revenues or retinues of kings and nobles. The government was the unit, and the individual only added one to the roll of serfs or soldiers. With us the individual is the unit, and "the government is for the people and by the people."

It is also a good omen, that public taste in the embellishment of rural homes and villages is of late rapidly advancing, and that the rich and varied charms of the country are drawing

* The following law passed by the General Assembly of 1877, designed to encourage tree-planting shows a growing appreciation of the economic bearings of this subject. "Whosoever shall plant any land in this State not heretofore woodland, (the actual value of which at the time of planting does not exceed fifteen dollars per acre,) to timber trees of any of the following kinds, to wit: chestnut, hickory, ash, white oak, sugar maple, European larch, white pine, or spruce, a number not less than twelve hundred to the acre; and after such plantation of trees shall have grown on an average six feet in height, the owner of such plantation of trees may appear before the Board of Relief in any town in which such plantations of trees may be located, and on proving the herein-mentioned conditions, such plantations of trees shall be subject to exemption from all taxation whatever, for a period of ten years next thereafter."

thoughtful and wealthy men to the simpler and purer enjoyments and employments of rural life. With this growth of public taste the day is not distant when beautiful country seats and villages will abound throughout our State. Bacon well says, "God Almighty first planted a garden and made this the purest of human pleasures." A taste for rural adornment once awakened becomes a source of fascinating enjoyment.

A beautiful home and grounds exert an elevating and humanizing influence not only upon the owners or occupants but upon all the neighborhood, for happily this taste is contagious. An elegant dwelling fitly surrounded by sylvan attractions and adornment is a contribution to the refinement, good order, morality and prosperity of any community, improving their taste and ministering to their enjoyment. On the other hand, a people content to dwell in huts and cabins, grow barbarous in their tastes and habits, as all history proves. They soon become ragged and dirty in their dress, uncouth in manners, coarse and low in their habits, brutal and cruel in character. Without aspiration for a better life, they can make no progress in civilization, education or art. But improvement in their homes, grounds and dress always accompanies, if it does not produce an advance in civilization. A tasteful and inviting home and a beautiful village are efficient instruments of civilization and education. There is protection as well as education in the fervent love of home with its sacred associations. Attachment to one's natal soil is an antidote to the restless, roaming, migratory spirit of our youth, as well as a safe-guard from temptation. Every influence should be combined to strengthen their domestic sentiments and attachments. The embellishments of the house and grounds are important helps in this direction. It has been well said, "The homes of America are the hope of America." However humble the cottage, it may be neat and tasteful, so that both in its exterior and interior form and life it shall be the symbol of all that is beautiful, noble and good. When one's home becomes the Eden of taste, interest and joy, those healthful local attachments are formed which bind one to the soil he has made beautiful, and then to the State and the country, for patriotism hinges on love of home.

Whatever embellishes one's home, increasing his local attachments and beautifying his domestic life, strengthens his love of country and nurtures the nobler elements of his nature. On the other hand, one without local attachments can have no genuine patriotism. As happy in one place as another, he is like a tree planted in a tub, portable indeed, but at the expense of growth and strength.

Not the least of the good work initiated by Linnæus was the "Shady Renaissance," so-called, or the new era of arboriculture and rural adornment. Humboldt was one of many who caught this contagious love of trees, and his words on this theme are as worthy to be memorized by the youth of America as they have been so generally in Germany. To give a few fragments from Humboldt: "Trees have about them something beautiful and attractive even to the fancy. Since they cannot change their places, they are witnesses of all that takes place about them, and reaching sometimes a great age become historical monuments. Man is as a butterfly in length of life and size compared to those giants which continue to grow in strength and bulk for thousands of years. If our eyes were microscopic and the integuments of plants were transparent, the vegetable kingdom would by no means present that aspect of immobility and repose under which it appears to our senses." There is a sturdy grandeur in a venerable tree which has withstood the storms of centuries. Some of the trees of California are believed to be over two thousand years old, and the venerable chestnut of Mt. Ætna is believed to be over thirty-six hundred years old. The rural and suburban adornment now the pride and glory of so many beautiful places in Germany, of which Dresden is a specimen, is the fruit of this revived love of arboriculture largely due to the influence of Humboldt.

In some portions of Germany, every landholder was formerly required to plant trees along the highways so far as his fields extended. Happy would it be for us, if the sovereigns of the soil would each make such a law for himself. Happy also, if the law of usage, fashion, or interest—as did the civil law there—required that every young man, before he married should plant a tree. The eve of marriage is a fit time for a young

man practically to realize that trees form the most beautiful drapery that adorns the earth, and thus to awaken a love of nature, perhaps, hitherto dormant, and open a new avenue both to his mind and heart.

BRIEFS.

Printed catalogues of their Educational Exhibits were freely circulated at Philadelphia by other States, and disappointment was expressed that none were found in the Connecticut Department. The need of catalogues was fully felt, but the whole appropriation was already used up. After meeting other necessary expenses from my own pocket, to say nothing of the extra cost of nineteen journeys to Philadelphia in preparing for and supervising our exhibit, I was not willing also to print at my own expense a list of many hundred articles, and of the eleven hundred books by Yale authors. To ask an additional amount from the State, or to beg the needful sum from the teachers, as was done in some other States, was not to be thought of.

Did space permit, other lessons from the Centennial would be discussed which can now only be named. I am endeavoring to introduce map-drawing from memory into all our schools. Superior work of this kind has long been done in the schools of Hartford, and New Haven, and many other towns, of which excellent specimens were shown at Philadelphia, but the practice has not yet become general in our rural districts. At the Centennial Exposition, the schools of New Jersey surpassed those of all other States in their exhibition of map-drawing. This achievement is due to the methods which Superintendent Apgar has been for years illustrating to the teachers of that State. To facilitate the introduction of this exercise into all our schools, Professor Apgar has frequently presented this subject in our institute and town educational meetings. I advise all our teachers to train their pupils in map-drawing from *memory*, following the plan and suggestions of whatever text book may be in use in each town. This practice fixes the geographical outlines firmly in the mind. It trains one to see accurately, forming the habit of exact perception, and then gives the power of clear conception.

Drawing was finely illustrated at the Exposition, and admirable specimens of scholar's work were there shown, especially from the schools of New Haven and Hartford, equal in my judgment to any work displayed in the whole Exposition by pupils of the same age and done under similar conditions. But including the work of the Normal Art School of Boston and several technical schools, the drawing from Massachusetts surpassed that of any other State.

Massachusetts has taken the lead of all the States in art instruction, employing a director of art education for the State on a liberal salary, and supporting one Normal School exclusively for art instruction, and giving great prominence to drawing in each of her five Normal Schools. Commendation of Connecticut from a Massachusetts source is therefore the more noteworthy. B. W. Putnam, the art teacher for the Massachusetts Teachers' Institutes, says: "The drawings from the Connecticut Normal School are superior to those from any other Normal School exhibited at Philadelphia." In his correspondence as art critic for a Boston paper he says, "In the work from the New Britain Normal School, we found that which delighted us very much—original designs taught intelligently, elements only given and pupils led on step by step till they are qualified to go to the greenhouse or to the fields and select their plants, analyze and conventionalize and make designs for textile fabrics or articles of domestic use. Connecticut may justly feel proud of this department of her Normal School." It is not claimed that the Normal School pupils in two years acquire skill equal to that attained in a ten years' course in the schools of New Haven and Hartford. But considering the little time given to this subject, in which they were generally untrained on entering this institution, the result is most creditable to their teacher. The instructor in drawing at New Britain, after teaching this branch successfully there for two years, spent an entire year in the South Kensington Museum of London, winning four prizes for her productions, and also the "Queen's Prize" of sixty dollars. The State is fortunate in having so skillful an instructor of our teachers in this important department of industrial drawing.

The subjects of Natural History, School Gymnastics, School

Hygiene, Oral Lessons, Object Teaching, History in Schools, Music in Schools, the Teaching of Manners, of Love of Country, or developing the Sentiment of Patriotism, Permanency of Teachers, Supervision of Schools, Course of Study, Instruction in Sewing, Schools of Forestry, Industrial Schools, Technical Education, as shown at Philadelphia and as observed abroad, though practical and important, cannot be discussed here for want of room. Highly appreciating the value of both Industrial and Technical schools, now so common and useful in Europe and so much needed and little understood here, I hope in a future Report to give the fruits of a fuller inspection of these institutions and a more careful observation of their results.

Oral Lessons on the qualities of familiar objects, on animals, plants, minerals, the human body, on the simple facts and phenomena pertaining to the properties of matter, gravity, motion, the air, water, sound, light and heat, will form early habits of observation and thought, of great practical value in all after life.

Proper instruction in manners and morals daily given by example as well as precept will foster a spirit of kindness and courtesy among pupils, and respect and affection for parents and teachers, and tend to form habits of neatness, order and truthfulness.

The Course of Study is more fully and generally marked out abroad than in this country. In too many of our schools this deficiency occasions confusion, neglect of proper classification and disregard of the true sequence of studies. These topics will be discussed in our Institutes during the present year.

The last meeting of the State Teachers' Association was an occasion of special interest. All the papers read before the Association are worthy of publication, but space can be found in this Report for only three.

Among the pleasant incidents of the year was the dedication of Gildersleeve's Hall—a new school house at Gildersleeve's Landing in Portland. For the erection of this edifice, Sylvester Gildersleeve, Esq., gave two thousand dollars, and on the evening of the dedication he added five thousand dollars as a permanent fund for the benefit of the district. No district of its size in Connecticut can now boast of so beautiful a school house and lecture hall.

The Morgan School continues its grand work, and the munificence of Charles Morgan, Esq., to this Institution is still increasing. It is a great benefaction to Clinton, and Middlesex County and to the State, and will be a noble monument to the memory of its generous founder.

In former Reports I have quoted the Statistics of the Patent Office, which show the long-continued preëminence of Connecticut in invention. Our State is still unequaled in inventive skill, as the following letter indicates:

New Haven, January 1, 1877.

DEAR SIR,—It affords me pleasure, in compliance with your request, to give you the number of patents issued to citizens of Connecticut for the year 1875, and as compared with other States. Connecticut still stands at the head, having received 706 patents, or one to every 761 of its inhabitants. Massachusetts, one to every 787; Rhode Island, one to every 943; New York, one to every 1163; these being the four highest States.

Very respectfully,
JOHN E. EARLE.

The remarkable variety of Connecticut manufactures, ranging from pins and fish hooks to cars and Gatling guns, is both cause and effect of the inventiveness of our people. Our manufacturers have suffered less from the hard times than those of other States, on account of their facility in changing or multiplying their fabrics to suit the varying demands of the times. In a late visit to the Scoville Manufacturing Company, of Waterbury, for example, I found, according to the figures furnished me by M. L. Sperry, Secretary, that this Company has made 9,313 varieties and patterns of their goods, including silk and metallic buttons, and various wares made of brass, copper, zinc, tin, nickel, platinum, German silver, and "white metal" plated with gold and silver.

The article on "Accuracy of Statistics" was written by the Clerk of the Board of Education. As our statistics have been prepared by him since the organization of the Board, I may say that in other States and at the office of the National Bureau of Education in Washington, they are regarded as models of

pains-taking accuracy. That they contain no errors, is not claimed, but that no effort is spared to secure the utmost accuracy attainable is confidently affirmed. Distributed to every town, they must meet the scrutiny of all School Visitors, each familiar with the facts and figures in his own locality. For twelve years our statistics have stood this test. For the sake of avoiding errors in the future, information is respectfully solicited in regard to any mistakes that may be found in this Report. Every school officer can easily verify the figures for his own town.

On the receipt of the returns at this office they are carefully collated, and if any signs of error are discovered,—if, for example, there is an apparent discrepancy between the figures for "moneys received" and "moneys expended," or between the number "enumerated" and the aggregate or average attendance, the returns are sent back for correction, or an explanation is sought of the writers. Several weeks are annually occupied in this preparatory examination of the returns.

As our report must hereafter be printed four months earlier than formerly, by reason of the change in the annual session of the General Assembly, there is a manifest necessity for the UTMOST PROMPTNESS in completing and forwarding the returns required by law from District Committees and School Visitors. The great majority of these officers have always performed this duty with commendable punctuality. But every year a few reports have been unreasonably delayed, thus causing great inconvenience and embarrassment in compiling the statistics which must accompany the Report of the Board to the General Assembly. Such delay hereafter will exclude from the published Report the returns from the delinquent towns, and will involve their forfeiture of public moneys. All District Committees and Acting Visitors are therefore requested to prepare and forward their respective returns in accordance with the laws. District returns to school visitors should be made on or before the FIFTEENTH OF SEPTEMBER, and School Visitors' reports should be forwarded to the Secretary of the Board of Education by the FIFTEENTH OF OCTOBER.

BIRDSEY GRANT NORTHROP.

REACHING THE MIND OF THE PUPIL.

[An Address before the Connecticut State Teachers' Association. By W. B. DWIGHT, State Normal School, New Britain.]

I can hardly hope to contribute any suggestions on the very practical subject of Reaching the Mind of the Pupil, that have not already entered into the experience of many, in such an assembly of teachers as this. For I believe that a representative body of teachers contains a much larger proportion of experts than any similar body of doctors, ministers, lawyers, or other professionals. Among doctors, for example, the only true experts are those who have command of the larger fields, in which alone can be attained any extensive experience of many classes of difficult diseases. Those who practice in such fields have the prestige of the greater skill. But among teachers, almost every form of difficult experience forces itself upon the instructor in the lower grades. Every moral deformity and disease to which the school-boy is heir, or of which he is the originator, develops in the little red school-house by the wayside. It is there that the principles of teaching are born, are tried, are matured; and the teacher that has won this humble field,—the teacher who has triumphed over the wear and tear, the friction and distractions of an ungraded or of a primary school, has already bespoken triumph in any larger field compatible with his own mental culture; he is an expert; and I defer to every teacher of a primary or ungraded school, successful in that field, as a capable critic of any enunciation of general school policy.

It may not be unprofitable, however, to review and put in a compact shape the main principles bearing on our subject, derived from study and experience, with some of the more important applications as viewed from my own stand-point; perchance, if I cannot contribute anything new, the theme so presented may prove suggestive, and, in that way, useful to my fellow-teachers. The subject proving too large for my present limits, I can only state in the briefest words the points involved, leaving you to extend their meaning and application.

Of the requisite conditions to successful teaching, three may be mentioned as being the more fundamental and obvious:—

1st. The subject matter of instruction must be carefully matured, selected, simplified, arranged, and adjusted to the occasion, and to the end of education.

2d. A good degree of scholarship and culture is required in the teacher; a thorough acquaintance with the subject-matter and of his own power in handling it.

3d. A teacher should possess a general psychological knowledge of the human mind, with which objectively he has to deal.

The importance of the first two is generally recognized; the last, although insisted upon by all who have made the processes of teaching a study, is practically neglected by many who occupy teachers' places.

Now there is too general an impression that the three requisites above named are the only fundamental, essential ones, and that a teacher satisfactory in these respects, is completely equipped for his work; while too often the blaze of splendid scholarship lures the attention from every other consideration, to the deep injury of whole generations of classes. A teacher may be well furnished, as indicated above, and will then have fine weapons in his hands, but he may be utterly incapable of using them with any success.

It does not follow that because a gun-smith has on hand a powerful stock of rifles, he is the man to hit the mark. We have too many teachers, who, like the rank and file of an army, do not expect, and are not popularly expected, to take any aim in their field-work, but point their guns towards that quarter of the landscape where the enemy is, and fire, content with the scant percentage of the one shot out of three hundred, that hits. But the day of that kind of work is going by, and there is now a demand for teachers who take pains to be sharp-shooters,—teachers who not only have fine weapons, but who care enough for results to practice their aim, and who take aim, and reach the mark. In short, we need not only the mental equipment of the scholar, but we need a profound and constant study of the art of taking aim and producing effect. We need a study of the art of reaching the mind of the pupil, with the power stored up in the scholar. To the fundamental requisites, previously stated, there must therefore be added a fourth, scarcely less fundamental, namely:—

4th. A faithful study of the best methods of applying the knowledge of the subject-matter through the personal culture of the teacher, with reference to producing the maximum impression upon the pupil.

We cannot sufficiently insist upon this point as essential, though often, especially in collegiate instruction, scarcely recognized. It is just here that the professional character of the teacher begins; he who stops short of this is only a scholar: he may be a scholar teaching; he cannot strictly be called a teacher; he may be credited in some cases with a considerable degree of success, but this probably is gained only from the inevitable proficiency of the more intelligent of his pupils who are so athirst for knowledge that they extract it from their teacher as they would from an Encyclopedia. These are held up, to the glory of their teacher, while the neglected majority of his pupils, who require a professional skill which they do not experience, fall behind unnoticed and unbenefited. When such so-called teachers turn up behind the presiding desk of a public school, their lot will be one of constant friction, and little success; their momentum of learning may keep them headed in the right direction, but their course will be like that of a train going over the sleepers instead of on the rails,—it will be rough riding, with little progress.

There is more excuse for failures of public school teachers in this respect, in view of the attitude, as regards this point, of our colleges, supposed to be the leaders in educational work. Mere

scholarship, without reference to capacity or disposition to reach pupils effectually, appears to be, (aside from moral character), the only requisite to an election to the responsible office of college tutor, while a profound scholarship seems to out-dazzle any other consideration in the selection of a professor. Now while many thus chosen happen to be excellent in imparting their knowledge, and are cherished in the memories of successive classes, others fail signally as teachers; in fact the very profundity of the learning, or the rare quickness of the intellectual powers, may prove, in two ways, an obstacle in teaching; first, when it either disinclines a professor from following patiently the plodding steps of the pupils, or secondly, when it positively prevents his understanding the gentle grades by which alone they can be lifted up in his department of knowledge. Thus an Astronomical professor, whose rare genius has carried him to his present high standpoint, by leaping easily over what to an ordinary mind appear to be incomprehensible chasms of thought, is often utterly incapable of finding or constructing any bridges by which his less stalwart pupils may follow somewhat in his course. One who has reached a high point by having to take short easy steps himself, is often better qualified to help on others like himself in qualities of mind. Now it is not strange that young men who graduate under such a system as the present college system, should themselves imagine that good scholarship alone will suffice in the teacher's desk; but coming into fields where they do not have the momentum of a great college to back up their failures, they are astonished at their want of success.

It is by no means intended to deprecate the highest scholarship in a teacher, of which he can hardly have too much; but to insist that it must be coupled with the power of applying one's knowledge to others. Lord Bacon cites the case of a Papal Nuncio to a certain nation, who being consulted about his successor, replied that they ought not to send one who was too wise, because "no very wise man would ever imagine what in that country they were like to do." So a teacher may be too wise in a certain way, to understand the weaknesses and sympathetic yearnings of his pupils. The most important question we would ask of a marksman would not be: How good is your rifle? but, how many times can you hit the bull's-eye? and we look him straight in the eye to see if he can answer it without wincing. So of a teacher we ask: how well do you succeed in driving ideas home to the apprehension of your pupils?

It is in view of these facts that we claim that there is a *science of teaching*, and that proficiency in this science, and not scholarship alone, should be required of every instructor from college to primary school. It is one of the chief objects of this paper to emphasize the point that no one should be considered properly a teacher who does not study the flight of his "winged words," to see that they strike home as often as possible.

Let us now consider how this principle may be carried out. This may be done in the first place by reference to certain general

rules, founded both on Psychology, and on the experience of the best teachers. These rules are recorded in the best treatises on the teacher's work, and in various educational journals. But a teacher well acquainted with these, is not yet the master of the situation. It has been quaintly said that when God makes a man, the mould in which he is made is broken at his birth. The wide diversity in the patterns of mind thus elegantly set forth, demands something more in the school room than a bald application of general rules. There must be constant special study of individual character, followed by special modifications of methods. A teacher, for instance, may have devised on general principles a wise code of incentives; but the incentive which fires the soul of one boy, does not add one degree of heat to that of another. A system of discipline has been devised, but its results are sadly unequal. The chastening which brings one boy well up to the mark of good behavior, is laughed to scorn by a second, while to a third, it is like an unwholesome scourge of knotted cords, leaving indelible scars on his soul, and preventing in him thereafter, any fruitful affection towards his teacher. Methodical rules of action are not sufficient in dealing with such diversity in character. They must exist, and form the basis of our procedure; but they must ever be tempered by a study of special cases, and often nothing but that quick intuition which flashes on us like lightning, (and like lightning comes from we know not where),—this alone reveals the whole situation, and the only eligible course of action. It is doubtless this use of intuition which makes so many women to succeed in schools where better educated men have failed. The more perfect our information in regard to the circumstances and idiosyncracies of individual pupils, the better we shall be prepared for reaching their minds by proper adaptation of our work. Two boys in the same school, Paul and Mark, are to a trying degree listless, inattentive, unscholarly. Scholasticus, the teacher, learned in books alone, valedictorian at college, a capital subject for future Ph.D.'s or LL.D.'s, will apply to both the same forcing process, adapted to neither; and finally, glad to get rid of them, will let them pass out from his school, none the better, but rather the worse for life for his blundering work. For Paul is a keen boy, and very far from unteachable, but he is an embryo mechanician,—an inventor; one whose soul is not easily waked by the ordinary studies, but who can be fired in a moment by the whir of wheels and the click of machinery. A score or two of years hence, when Scholasticus visits some future Industrial Exhibition, he will wonder at the skilled wares there contributed from the brain and hands of him whom he buffeted around the room as a dolt. But he has missed the personal share he might have had in the building up of that inventive mind. Now there is a way in which such a boy could be helped in school-work, but only the skilled research of a true teacher will find it.

Mark, on the other hand, is listless, for quite a different reason. He is in truth of a scholarly disposition, but his physical frame is

very weak; his parents are too poor or too mean to employ help, and at home he is cruelly overworked and underslept. He reaches school in the morning already broken down with the morning's chores, half of which his father should have done instead of smoking lazily in the corner. He is only fit to lay his weary head on his pillow or in the grave, and he cannot apply himself to study; he craves intellectual food, but try as he may, he cannot attend. Now Isaac Taylor has said that it is the power of attention, rather than the general intelligence, that is impaired by ill-health. Poor Mark, never having read Isaac Taylor, fears it is because he is so wicked. Scholasticus, never troubling himself to analyze child-nature or child-surroundings, and finding nothing to the contrary in his Euclid, his Odyssey, or his Demosthenes on the Crown, also believes it to be total depravity. The same stern, unvarying discipline that soured Paul, is applied to Mark, until at length his miserable schooling being over, he drops out of the ranks a lump of helpless despair. And yet learned men, barricaded behind thousands of tomes, and dropping pearls of linguistic lore every time they speak, will doubt whether there is such a thing as a *science of teaching.*

We cannot fail to notice that in this matter of a minute personal interest in his pupils, the teacher begins to hold a parental relation towards them. It has been said that the school is only a substitute for family parental instruction. Then the nearer it approaches the family in the relations between pupil and teacher, the better. The parental relation implies, first, (1) A deep, underlying affection; next, (2) A personal study of the individual phases of each child and of the varying ways and means of reaching his disposition; and then, (3) Patient work in trying different methods of winning attention and inducing study. All these are to a serviceable extent possible to a teacher, and as far as they are possible they are essential to his faithfulness. To expect a teacher to be to his crowded and motley pupils very nearly what a parent is to his family, is of course absurd. Yet to abandon all attempts in this direction is equally absurd and a serious wrong. He cannot love individuals of his school-family with a true parental love, nor would it be desirable that he should attempt to do it, but he can have a proper affection for them, which will grow as he interests himself in their welfare. Very much can be done in school on a parental plan, and we must go as far as we may in that direction.

Supposing now that the teacher is disposed, standing in a parental attitude, to study closely the best ways of applying knowledge to individual cases, we may profitably occupy ourselves with some suggestions as to particular applications of these principles. We may most conveniently arrange our thoughts in accordance with the three-fold division of the human mind, considering ways of reaching, first, the intellect, secondly, the sensibility, and thirdly, the will.

First, then, as to reaching the pupil intellectually. Here we find the two-fold task of securing his attention, and developing his

power of thought. We have to secure not only the outward position and appearance of attention,—the upturned face, the fixed eye, the folded hands and quiet demeanor,—the formal attention so completely satisfactory to some teachers,—not that alone, but something deeper we require, the attention of the understanding, the trying to comprehend. To be able to gain this is one of the highest gifts. Whether such attention is secured or not may be ascertained by frequent questions indiscriminately distributed. Freedom on the part of the pupils to ask questions when points are not understood, is a necessary condition to this attention, and the slavish silence imposed upon many schools, lest the teacher be interrupted, is a relic of a style of teaching worthy of being embalmed and stowed away forever as a historic curiosity. Let the teacher be interrupted by proper questions, if he has not made himself understood. He will be astonished to find how often he is obscure.

But let us not forget what has already been remarked, that want of attention is often occasioned by ill-health, in which case we should not harshly reprove it, and thus plant stings in a conscientious, but suffering soul; but seek to have the cause of the evil removed.

To secure good attention and intellectual service we need, first: good topical arrangements of the subject; arrangements having due reference to the prevailing mental characteristics, at different ages of adolescence, and arrangements so well ordered as a whole, and as to the relations of the parts, that the pupil can see each topic standing out like a clearly outlined statue. Textbooks which thus present the subjects are very rare, and in such sciences as Physics, and Chemistry, and Astronomy, it is almost impossible to find one suited to the needs of our public schools. In the second place, it is of the highest importance that we should use words which the pupils can understand. Many teachers think they do this when they do not. We are too often like the fishwoman, who thought the eels had become used to a certain operation because she herself was quite familiar with it. It is extremely difficult for us to realize that some very common words are meaningless to many in a class. A little investigation in this direction will surprise any teacher who has not tried it. Now the loss of a word may involve the loss of a whole sentence, and that may confuse a theme. We have no right to leave it thus. We must simplify our language, and make it a duty by frequent questioning, to know that we are understood. It is not best, however, to confine ourselves to words that pupils already comprehend, or we shall keep their little vocabularies always little. We must introduce new words, but always explain them or so couple them with known synonyms that they will be understood. Frequent exercises in the study of synonyms, and other language lessons, are exceedingly profitable, and may be made very interesting.

Again, we shall promote intellectual activity by using variety in our expressions or explanations of a truth. What is stated in one

way, goes home to one mind, but is missed by another. Care in presenting a subject in different lights, illustrated by different examples, or expressed in different words to suit different types of mind, will give a teacher a power in reaching the thoughts of his class which he cannot afford to lose. Just as the dinner served by the crane in a vase to suit his long neck, left his short-necked guest, the fox, hungry, so instruction served up to suit one class of mind, may prove only a starving feast to others whose mental conformation is different. It would also be well to use such expressions and illustrations as may be adapted to the duller members of a class, for they will reach the brighter ones as well, and so cover a larger field than could be covered by aiming at the more intelligent ones alone. But in respect to length of lessons and rapidity of progress we would not follow this rule. It seems more just that rate of progress should be suited to the average capacities of a class, rather than that all should be made either to gallop ahead with the quicker ones, or be dragged along at the pace of the dullest.

Again, to take any deep intellectual hold of the pupil, we must so teach as to call out unceasingly his own observing and thinking powers. The intellect is not to be treated as a mere storehouse for facts and principles and other people's thought-gems, but as soil to which all these shall be as seeds, and whose culture shall develop growth and fruits. The first plan makes the pupil either a dolt on the one hand or an encyclopædia on the other; the second plan makes him more or less of a *man*. We have now stepped upon one of the grander fields in which the master-teacher wins his laurels. To develop mind demands mind. To adapt processes for doing this to the diverse intellects in a school requires deep discernment of individual character, and a genius in devising and applying expedients. Often there are precious gifts lying far beyond any common reach like the diamonds which Scindbad the Sailor saw lying in a deep valley surrounded by impassable mountains—there may be surrounding these treasures, mountains of reticence, or of eccentricity. But like the merchants whose skillful expedients drew out Scindbad's admiration, there are teachers rare in kindly devices who will not rest till they have contrived some plan for bringing into use these hidden treasures. Under their hands a child almost passes through a second birth into a new life.

Again, intellectual activity will be greatly promoted in the pupil if the teacher puts his own personality, his own life and magnetism into the theme. For him to hold the pupils simply to committing and reciting the words of a text-book, himself acting only as censor on the performance, is a wretched way, with young pupils at least; only a shade better than that of the student teaching himself by poring over a book. Tyndall's books on light, heat and sound, never took hold of the public as did his subsequent personal representation of the same facts. The tone with which a book speaks to a class is dull compared with the

ringing magnetism with which the same words will roll forth from a teacher's lips, replete with the mystery of his own influence. It is found that mineral phosphates rich in fertilizing ingredients, dug out of the rock in which they have been stereotyped for ages, have far less influence on the crops than phosphates of identical chemical composition which reach the plants just fresh from assimilation with some other living organism; their fresh association with life has given them a mystery of power. Any form of knowledge which has first passed through the laboratory of the teacher's mind, will reach the school filled with a similar mystery of new power.

Lastly the true teacher will not fail to gain the more effectual access to the pupil's intellect, by ordering his instructions with due regard to the well known classification of mental operations at different stages of child-life. He will bear in mind that the power of perception predominates in the earlier years, then, imagination or conception, and later in youth the reasoning powers. Yet I must object to the extremes to which some teachers carry this division. To hear them treat of this topic, you would gain the impression that the child did nothing intellectually but perceive till about the sixth birthday, when the bud of imagination which has lain dormant with tightly closed petals, expands suddenly with full bloom, while the bud of the reasoning faculty remains unexpanded till about the twelfth birthday. But the fact is, that while the order given is correctly that of predominance, all the faculties co exist in use and all need some training. When my five-year-old asked me, as he did, whether God did not make sin since he made it possible for men to sin, he showed no mean power of reasoning. Any one who watches closely, will find that from a very early age children are both imagining and reasoning as well as perceiving. I hold, therefore, that both of these must, to a subordinate extent, be exercised even in early childhood when perception predominates. Thus I would not fit elementary geography rigidly to the perceptive powers, but would afford opportunities here and there for a gentle use of the reason. It will give variety and relief to the pupil, letting forth perhaps some pent up energies. We do not feed an infant on milk till a certain definite age and then suddenly change its diet to meat, but suit its capacities by a gradual change. An analogous mental treatment would seem the wiser. I firmly believe that teachers who cleave to a slavish method of training the perception and imagination alone in earlier childhood, neglect some glorious opportunities presented by child-nature itself, of training and inspiring the reasoning powers at an important stage of their early development; opportunities which if improved would go far towards the attainment of clearness, power and facility of thought in maturer years.

To insist, therefore, in teaching, upon a rigid adherence to the training of the perception, the imagination, and the reasoning powers separately, and exclusive each of the other, at separate

successive stages of childhood appears to be neither philosophical nor natural.

We may next consider ways of reaching the pupil with reference to the sensibility acting with the intellect.

Some persons think that in running his train, all that an engineer has to do is to open wide the throttle valve and drive ahead under full steam till it is time to whistle down brakes and shut off at the next station. This is never the way he does it, or he would bring but the wreck of a car or two to the station. The engineer studies carefully every up and down grade along the course, every dangerous crossing, every shaky bridge, and modifies the movement to suit each case; his hand is ever on the valve-lever, adjusting the motive power to its work. But some teachers run their schools by putting on steam and driving blindly ahead; the intellectual is all that concerns them,—the great rails on which the machine is to run; what are the up-grades and down-grades of varying child-sensibilities to them; even the sharp curves of eccentricity which require special manipulation of the driving power do not fall under their notice; go ahead is their rule; they are only concerned to lead on; let those follow who can; let the rest fall away if they will.

This may be the self-imposed triumphal march to a scholar, but it is not teaching, nor is anything truly teaching in college, academy, or village school, with either a professor or a village maiden in charge, which does not include a constant watchfulness of grades and diversities in the emotional nature of the pupil, attended by corresponding adjustment of the guiding power. This is one of the most delicate and difficult of all tasks; many persons otherwise well qualified, are naturally so incapable of reading a child's mind, that they should never stand behind the teacher's desk. One essential condition in gaining this power is the humbling of one's self to be as it were a child, and this many are too "great" to do. Here a woman is "*facile princeps.*" Capable of looking with motherly instinct even from maidenly eyes into the souls of her pupils, she will read like a flash, what blunter man would lose. In the way of particular application, we have time for only a few suggestions in this connection.

First. What was said above in regard to the intellectual stimulus of the teacher's personality; his clothing the dry bones of the text with his own flesh and blood, as also in regard to his stimulating the independent original work of the pupil, are applicable also in respect to the emotions.

In the second place, the sensibility of many a pupil is in a state of chronic irritation, because of his having to pursue uncongenial studies in the stereotyped course. Being perhaps mathematically inclined, history, natural science, music, are intolerable; or being a very Nimrod in the chase after butterflies or birds, he tries in vain to rally his wandering thoughts around the topic he considers misnamed "interest." To others, all their present studies are an irritation, because not one of them has yet met the bent of his mind. Now may we not find at least a partial solution to this

difficulty. Look at the problem. Wanted, a way to apply studies successfully to a mind that repels them. Now look at a certain process in art. The dyer has cloth to which he must apply certain colors, but the cloth repels them. He does not, in imitation of some teachers, force the cloth through in a perfunctory way, hoping that some of the color may adhere, a little here and there in spots. No, he finds some substance for which the cloth has a marked affinity, and by its means as a "mordant" he fixes the colors fast and strong. Let the teacher find the studies or pursuits for which the pupil has some taste, and use them as a mordant by which to win him to the others; that is, something which will fire the mind of the pupil and make him accessible in other branches which can be shown to be tributary to excellence in his favorite pursuit. Natural science, which may be introduced gently in object-lessons, is often a very useful mordant. What a joy and glory to a teacher to see a boy who has been listless and dormant, waken up at last, under his skillful treatment, into a new life, and begin to develop intellectual activity. Any teacher of several years' standing who has never experienced this pleasure, may well doubt whether he is yet working on the right plan.

Again the teacher must be sunshine to his pupils, and present the bright sides of things to them; for a childhood that is not sunny is not a wholesome one. And he must show himself a true friend, not with a hollow patronizing friendship which children are quick to discover and despise. He should be sociable when the routine of school is over and his life should be of such a pattern that the pupil will ever revere and love his name.

Again, it seems to me that one of the most important principles by which we should regulate our *discipline*, has regard to a proper treatment of the sensibilities. I believe it a safe rule that any course of discipline is in general unwise which does not commend itself to the sense of justice and propriety of the school. It is of course not meant that we should not punish a child till he fully approve of the operation and the method; in which case punishment would indeed be rare. But I mean that a course of penal discipline is probably injudicious which will not in the long run gain the approval and respect of all the healthy pupils in the school-room. The particular victim at the moment of infliction will be too much blinded by conflicting emotions to approve, but his companions will, and he will in his calmer moments. But punishments which offend the sensibility, as being degrading, or disproportionate, harsh in application, given in dictatorial, tyrannical spirit, or punishments under technical rules given to those for whom they are not fitted,—all these arouse a sense of injustice which is fatal to the best intellectual progress. For similar reasons irony in the school room is intolerable; it disciplines keenly, but it leaves an ugly wound, slow to heal. Again it may be suggested that a pupil will be reached by a disciplinary course much more effectually if obedience were required to rules, with the distinct understanding that it is not done so much because they are the rules of the school, as because they are made for his

own good, to develop his nature in all power and dignity; while breaking a rule is shown to be a worse injury to himself than the peace of the school. Our Saviour presented this true educational view of human restrictions when he said that the Sabbath is made for man, not man for the Sabbath. This policy was one of the secrets of the great success of the late honored Samuel M. Capron, of Hartford.

The question of artificial incentives has an important bearing on the sensibilities of the pupil. Prizes as ordinarily given injure the sensibilities of the many, more than they benefit (if they benefit at all) the sensibilities of the few fortunate ones. I would suggest as the least injurious form of such incentives, rewards in kind, i. e. consisting of scholarships, in free instruction in certain accomplishments, such as music, drawing, painting, moulding, etc., given as rewards for excellence in the ordinary departments of study.

Again, in all our intercourse with young pupils we must guard against treating their littleness with contempt. We must always act under a high sense of the natural dignity of human nature, even embryonic and disguised as it is under the jacket of a school boy. European tutors who have princes for pupils, even in the most authoritative and strict discipline, never fail to show their respect for the nobility that is under them. In this country where every citizen is a sovereign, every child is a prince or princess, and worthy of being treated with such a respect as may prove a moral power for its good.

But deep in the human soul behind the intellect and the sensibilities is a great shadowy power called the will; we must deal with this also in reaching the pupil. Within my narrow limits of time I will only remark that though we can work only indirectly upon the will, yet we may gain much power over it. In the first place if we have succeeded in producing a normal harmonious development of the intellectual faculties and sensibilities, we may confidently hope that the will may respond rightly to their action. In the second place, if we have dealt aright with the emotions, and have a strong will of our own, we may do much by our own magnetic power to carry before us the wills of the pupils. Some teachers take pride and comfort in the weak-willed mass of their pupils, but are horribly afraid of that outer belt of strong-willed urchins who look defiant and distant from the further seats, like a belt of veritable savages in the skirts of a forest. But the teacher who understands the management of the emotions, on her first entrance into the school-room looks around with kindly eye upon this band of invincibles, and quietly picks from them her future best scholars, her stanchest friends and defenders. By means of these she will soon rule the school. While other men were fearing the lightning, Franklin and Morse stepped up and made it do them service. While weak teachers are glaring helplessly at the vicious big boys, across the school-room, the self-poised teacher takes them by the hand, and makes them her right-hand helpers. She gains these triumphs by the master-stroke of policy of enlisting their very turbulence into useful service, and

making them self-forgetful by interesting them in school-work skillfully devised for their benefit, and by leading them by magnetic power rather than driving them by authority. She accomplishes these results by practising instinctively what George Eliot has so gracefully formulated in these words: "All passion becomes strength, when it has an outlet from the narrow limits of our personal lot, in the labor of our right arm, the cunning of our right hand, or the still creative activity of our thoughts."

In conclusion it might be asked, How may a teacher know that he is reaching the mind of his pupils?

In reply I would say, First, by noting an increase in the percentages of good recitations or examinations on the part of those whose low scholarship has called forth his special exertions; but more especially, one of the chief evidences is in signs of progress in general culture from month to month; not merely the formal acquisitions of book-learning, but of that general culture which is a broadening, deepening, and beautifying of the intellect,—the soul. It is not a culture which is measured by answers to questions in arithmetic, geography, or geometry, in which excellent examinations in a formal way may be passed without much culture. But it is recognized in the sparkle of the eye kindling with new intelligence, in increasing attachment to teacher and to duty, in a quickening grasp of subjects beyond what is attributable to mere strengthening of the memory, and in a healthy thirst for new things to conquer; these are signs of culture. Notice a cultivated citizen in some ordinary walk of life. He might pass a very indifferent examination in the arithmetic, the grammar, the geography of his school days, yet his culture is high and unmistakable, in perfecting which these were the tools now forgotten, as are the tools which shaped the elegant mouldings of any grand edifice. There will then result from good teaching much culture quite independent of technical recitations.

We may add by way of caution that the public-school teacher is in imminent danger of giving up too easily to the difficulties of assuming a parental attitude, and of doing special work among his pupils. He is in danger of becoming himself demoralized, and of degrading his calling; but let him rise manfully above this discouragement, and if he cannot do all that he could *wish*, let him do all that he *can*, which will be much. Let him not be to his school like a river flowing through a country between high banks, but like the Nile in its flood, overflowing and extending blessings to all within reach.

One must not put *self* forward in his labors, yet if he do honest and thorough work in the school-room, his name will surely thereafter be linked to the culture of his pupils as indissolubly as that of Newton to gravitation, or Luther to religious liberty. For a teacher thus to live, when his voice no longer lingers in the hall of any school-room, he must be one who teaches not to receive his salary only, but that he may lift up the whole school, and with it as with a quiet but mighty lever,—the whole community in which he lives.

THE PRESENT AND THE PAST;

OR, WHAT HAS BEEN ACCOMPLISHED?

[An Address before the Connecticut State Teachers' Association. By CHARLES NORTHEND, Superintendent of Schools, New Britain.]

It is wise for associations, as well as for individuals, to pause, occasionally, and review the past, that from its lessons and warnings, they may gather hints that will prove of future benefit. Though, in one sense, it is true that the dead past is gone forever, it is also true that the lights and shades of its influence extend down through the ages, and it behooves us of the "living present" to gain from the same such instruction as will be of service to us, either as a guide, a warning, or an encouragement. It may be, that in reviewing the past of popular education, as we shall find that many and great improvements have been made, so we shall also find that preceding years, with their generations, have, in proportion to their advantages and means, accomplished a work, and set in operation agencies for good, that will tax our best energies and powers to carry forward successfully to meet the wants and demands of the present time with its emergencies.

It has seemed to me fitting, in this Centennial year of our national existence, that we give a brief space of time to a review of the department in which it is our high privilege to labor,—not only that we may ascertain what has been achieved in the past, but also that we may learn what the "signs of promise" are for coming years. We shall not attempt to look back over the whole period of our national existence, more than to learn that early in the settlement of the country the church and the school-house were often seen side by side, as they have always been side by side in the hearts of the people. I may, however, safely take a retrospective view which shall embrace the last half-century, during most of which it has been my duty, as well as privilege, to labor in some department of the educational field. It may be safely and confidently affirmed that a great and truly desirable progress has been made in nearly every particular pertaining to the cause of popular education,—and that this may be made evident let us proceed to enumerate some of the evidences of improvement that are of the most decided character.

Previous to the year 1825 there was a wide-spread and general feeling of apathy over all the land in relation to common schools, so that though the subject had a place in the hearts of the people, it needed and required the efforts and talents of some leading spirits to arouse the public mind, and shake off the lethargy which had taken possession of it, and so secure attention to much-needed and essential progress and improvement.

About the year 1825 a sort of Educational revival commenced, and in the years immediately following it was encouraged and promoted by such men as Jas. G. Carter, Wm. C. Woodbridge, Saml. R. Hall, Gardner B. Perry, Thomas H. Gallaudet, Henry

Barnard, Wm. A. Alcott, Horace Mann,* George B. Emerson, Samuel J. May, Edmund Dwight, William Russell, and others, most of whom have gone to their reward; and in more recent years their places have been filled by hundreds of "good men and true" who have given themselves with untiring zeal and energy for the continued and increasing advancement of the great interests of popular education throughout our vast country,—so that in all our newer States and Territories the common school is one of the leading institutions in the hearts of the people. Not only has it met with a ready adoption in our newly settled States, until from the Atlantic to the Pacific, and from the great lakes to the Gulf of Mexico, our country is dotted all over with school-houses,—those colleges of the people,—but the genius of popular education has moved across the waters, and from the great Empire of Japan a spirit of inquiry and investigation has resulted in the adoption of the system and appliances used in the leading schools of New England.

Of all the persons named among the early advocates and workers in the common-school cause, none should be held in more grateful remembrance by us of Connecticut than Henry Barnard. Relinquishing a profession in which his rare talents would have brought him wealth and high position, he gave himself to the work of improving and elevating our schools, with a zeal and devotion worthy of the highest praise. We of to-day owe to Henry Barnard more than we can ever repay, for the high privileges we now enjoy, for he it was who did the pioneer work and set in motion agencies which aroused the people and caused them to act. May we never cease to think of him and speak of him as one of the greatest benefactors of the times, and may our children and children's children be taught to honor the name of Henry Barnard; and though to human appearances, others may seem to have reaped where he has sown, his name will be honored long after the names of the reapers have been forgotten.

Let us also hold in grateful remembrance the names of Philbrick, Camp, and Northrop, who have done, or are doing, a noble work in pushing on towards perfection the interests of common schools within our State, and especially let us in every suitable way and on every proper occasion, coöperate with him on whom now devolves the direction of educational matters within the State.

* Mr. Mann was appointed Secretary of the Mass. Board of Education in 1837. He had been educated for the legal profession, and had entered upon its duties with the most flattering prospects. But he accepted the new office, and for ten years devoted himself to his mission with wonderful zeal, ability and success. He succeeded in arousing the public mind, and awakening an interest in schools that will be felt in all coming time.

† Mr. Emerson, though at the head of a very flourishing and popular private school for young ladies, in the city of Boston, was one of the earliest and ablest advocates for the improvement and elevation of Common Schools. As joint author, with the late Bishop Potter, of the "School and Schoolmaster," and in many other ways, he has accomplished great good. Of the twelve here named, George B. Emerson of Boston, and Henry Barnard of Hartford, are the only survivors. May their names and their deeds be held in grateful and perpetual remembrance by teachers and the friends of education throughout the land.

The following facts will show the various progressive steps in our own State:

In 1838 an Act was passed "To provide for the better supervision of Common Schools." By the first section of this Act, "the Governor, the Commissioner of the School Fund, *ex-officio*, and eight persons, one from each county in the State, to be appointed annually by the Governor, with the advice and consent of the Senate, were constituted the Board of Commissioners of Common Schools."

This Board appointed as its Secretary, the Hon. Henry Barnard, of Hartford, who thus became the first State Superintendent of Schools for Connecticut.

In 1842, the Act of 1838 was repealed, and the Board and its Secretary ceased their official existence.

In 1845, the Commissioner of the School Fund was constituted, *ex-officio*, Superintendent of Common Schools, and acted in this double capacity till 1849. In 1849, an Act was passed establishing the State Normal School, and the principal of the school was made, *ex-officio*, Superintendent of Common Schools. The care of this school, together with the appointment of Principal, was vested in a Board of Trustees, composed of eight members,—one from each county in the State. The Hon. Henry Barnard filled the double office of principal of the Normal School and State Superintendent of Common Schools until January, 1855, when he resigned, and was succeeded by the Hon. John D. Philbrick, now Superintendent of the Schools of Boston. In 1857, Mr. Philbrick resigned, and was succeeded by the Hon. David N. Camp, of New Britain, who continued in office until 1865.

In the Legislature of 1856 a member moved to abolish all special laws bearing upon Common Schools,—thus, virtually, leaving them without any controlling or supervisory influence. The attempt thus to check the march of improvement proved abortive, though it received quite a large vote.

In 1865, a change was made and the care of the Normal School and the supervision of the schools of the State were committed to a body entitled "The Board of Education,"—consisting of the Governor and Lieutenant Governor, *ex-officio*,—and four other persons, one from each congressional district, to be appointed by the General Assembly, for the term of four years,—one to go out of office annually. This Board was authorized to appoint a Secretary, who was also to be Superintendent of Public Schools. The first Secretary of this Board was Prof. Daniel C. Gilman, now President of the Johns Hopkins University at Baltimore. This office he held from August, 1865, till January, 1867,—at which time the Hon. B. G. Northrop, the present able Secretary was appointed.

The Normal School was placed under the charge of Col. Homer B. Sprague, who acted as Principal one year. In 1869, Prof. L. N. Carleton, the present efficient and successful Principal was appointed.

In 1870, a strenuous effort was made to abolish the Board of Education. A bill for this purpose was first rejected by the Sen-

ate, then passed by the House and returned to the Senate, by which body it was indefinitely postponed by a vote of 11 to 9. In this the House concurred by a vote of 126 to 76.

In 1876, another attempt was made abolish the Board of Education, by a member who attempted, in a speech of some length, to convince the members of the House that the common schools of the State had been retrograding for the last quarter of a century, and that they were now far inferior to the schools of fifty years ago. The House manifested its good sense by rejecting the proposition by a very nearly, if not quite, unanimous vote.

From the foregoing it may be seen that there has been a steady and sure increase of interest in the matter of Common Schools, though nearly every step of progress has been obstinately resisted by some persons,—though their number is now insignificantly small.

But let us proceed to specify some of the particulars in which we may find the clearest proof that progress has been achieved, not only in our own State, but throughout the country.

1. *School Houses.*—It was not until about the year 1840 that public sentiment was in any degree prepared to favor the erection of suitable school-houses. Previous to that time nearly every school edifice in New England was a disgrace to the community in which it was located. They were, most of them, badly located, old, defaced, inconvenient and uncomfortable,—with seats so hard that it has been humorously said that no one could sit for an hour on them without getting a strong impression that the verb "to sit" was a very active verb. And notwithstanding the miserable and dilapidated condition of these buildings it was, for a long time, necessary to make the most patient, persistent, and continued effort to secure a vote, in any district, for the erection of a new school-house. "The old house," it was said, "which answered for us," and it might have been added, for our fathers and forefathers, "is good enough for our children." Twenty years ago in one district of this State in which the school-house, which was really not good enough for an improved pig-stye, was claimed to be good enough for the continued use of the children,—and it was not until after fifteen or sixteen consecutive district meetings had been called and dissolved or adjourned, that a few earnest and persistent friends of progress succeeded in getting a vote for the erection of a new and commodious school-house,—and then the old one, after some repairs and patching, was set apart for the abode of swine. And so it was, in many districts, that the new school-house, with its improved furniture and apparatus, was procured only after the most persevering efforts of a few prominent and interested individuals. But what changes have taken place within the last thirty-five years! How rapidly have the old school-houses, with their miserable seats and desks, disappeared before the march of improvement, till now in nearly every town of New England and the other older States school-houses may be found which are at once an honor to the community and a bless-

ing to the youth; while the more newly settled States of the west have caught the spirit of the east, and challenge us to excel them. And so we may rightly claim that vast progress has been made in the construction, location and furnishing of school-houses; and, in passing, we may safely assert that these new edifices, with their modern appurtenances, have had a most refining and elevating influence upon the pupils in our schools, so that instances in which school property is abused, or defaced, are rare indeed. To such an extent is this true that it would be more difficult, to-day, to find a desk in a modern school-house marred or defaced, than it would have been fifty years ago to have found one free from evidences of abuse. A good school house, with approved furniture, is an educator of the most potent kind, and its refining influences will be felt for good in all the subsequent years of those who have enjoyed its privileges.

2. *Teachers.*—That there has been a very great improvement in the character and qualifications of those to whose charge our schools are now entrusted, as compared with the class of teachers employed fifty years ago, there can be no question. In this I would not be understood to imply that there were no good teachers a half-century ago. Far otherwise. At all times there have been teachers eminent for their success and usefulness, but fifty years ago such teachers were the exception and not the rule.

In 1838, the late Edmund Dwight, then a wealthy and benevolent citizen of Boston, offered to the State of Massachusetts the generous sum of $10,000 for the establishment of a Normal School, provided the State would appropriate a like sum. The proposition was accepted, and as a result the first Normal School in America was opened in Lexington, Mass., on the third day of July, 1839.* Only three pupils came forward at the opening, and for some time the school had but a flickering existence, and had it not been for the earnest and determined efforts of a few devoted friends, the institution would have expired in early infancy. But, thanks to its friends, it survived and though violently opposed, or treated with apathy, it continued to grow in favor and usefulness, and what was for a time regarded as a doubtful experiment, has now become one of the essential and established institutions of the land. Massachusetts, which hesitatingly assisted in opening a school as an experiment less than forty years ago, now cheerfully supports six Normal Schools, and the city of Boston has one independent of the State. Within the same period other States have followed the worthy example of the Bay State, and we now have in the United States 124 similar schools, whose advantages are enjoyed by more than 24,000 pupils. May we not claim this as a wonderful advance in the short period of thirty-six years! I am well aware, and freely admit, that many of our most successful teachers in the past, as well as in the present, have never enjoyed the advantages of a Normal School. It may well be said that such men as David P. Page, George B. Emerson, Cyrus

* The late Samuel R. Hall had opened a private institution for the education of teachers, at Andover, Mass., in 1827.

Pierce, Thomas Sherwin, John D. Philbrick, John Kingsbury, Samuel M. Capron, Chauncey Harris, and multitudes of others who have closed their labors, or are now in the successful prosecution of their professional work, have gained the highest rank as efficient teachers, and yet they never attended a Normal School. This we freely admit. As precious stones are sometimes found so perfect as to require but little, if any, attention from the lapidary's hand, so some persons are so constituted that they will assume high rank as teachers, without any special training. But who can say that the success of these men might not have been still greater, or more easily achieved, if they had been favored with a course of professional training? While we would give due credit to all successful teachers, wherever educated, we still contend that from those who have had a good Normal training, we have a right to look for the highest degree of success,—and at the same time we freely grant that one may graduate, with highest honors, from all the Normal Schools and Colleges of the land, and yet make an utter failure in the work of teaching; and we also grant that others, with but little help from any school, will, by their own good sense, and tact, and energy, rise to positions of the highest usefulness and success in the work of instruction. But as a class, the teachers of the present are greatly in advance of those employed forty or fifty years ago.* They possess higher and better qualifications, and engage in their work with more of a professional feeling, and continue in it long enough to become a power in the community. In a social point of view, the teacher has gained greatly, and the time will soon come when a teacher will no more than the minister or doctor or lawyer be expected, tramp-like, to seek his daily bread from house to house, on the "boarding 'round" plan.

But, to come nearer home and to the present time, if, without the advantages of professional training, such men as Morse and Barrows, of Hartford, Curtis, of New Haven, Camp, of New Britain, Sawyer, of Middletown, and others now teaching in our State, have for nearly half a century, and one even longer, won the highest merit as devoted, faithful, and successful teachers, who can say what higher success they might have achieved, and what brighter laurels they might have gained, if they had been favored with the advantages of a good Normal training? May we not almost imagine that such training would have placed them so far in advance of their day and generation, that the line of connecting influence would have been destroyed! While, then, we are

* In a memorial to the Legislature of Massachusetts in 1834, from a Committee of the American Institute of Instruction, of which Geo. B. Emerson was chairman, asking for the establishment of a Normal School, the following decisive language was used: "It is known to your memorialists that a very large number of those, of both sexes, who now teach the summer and winter schools, are, *to a mournful degree*, wanting in essential qualifications. * * * * They know not *what* to teach, nor *how* to teach, nor in *what spirit* to teach, nor what is the nature of *those* they undertake to *lead*, nor what they are *themselves* who stand forward to lead them." The memorial was immediately acted on, by the appointment of a Board of Education, and the election of Hon. Horace Mann, then President of the Senate, as Secretary of the Board.

ready to award great praise to the successful teacher, who has enjoyed the benefits of a professional course, let us not forget those faithful ones who commenced their career before Normal Schools were thought of, and who have, for nearly half a century, accomplished a good work and kept all the while, in spirit and in qualification, fully abreast of the advancing times.

3. *Teachers' Associations.*—It is said, and we think truthfully, that the first educational meeting for the cause of common schools held in the United States, was convened in Brooklyn, Conn., through the agency of that life-long friend of education, the late Samuel J. May. This was in 1827. In 1830, two important associations were formed, "The American Institute of Instruction," and "The Essex County (Mass.) Teachers' Association. The former has held its three days' sessions, annually, for forty-six years, in different parts of New England, while the latter by its two days' sessions, semi-annually, for forty-six years, has, by its influence, accomplished a noble work for the county, and teachers who have received inspiration and information at its practical meetings may now be found in various parts of the country, always ready to impart to others the benefits received from this pioneer association. These two associations were, for quite a period, the only regularly organized bodies working for the advancement of the interests of education, and they still exist and are among the most efficient agencies at work for the elevation and improvement of common schools. But as a "little leaven leaveneth the whole lump," so from these associations have gone forth influences which have permeated the whole country, so that while, fifty years ago, there was not an educational organization in the land, we now have them in every State and county, and, we might almost say, in every town of the land,—accomplishing great good not only among teachers, but throughout the community,—giving to the schoolmaster a name and a power in the community, and diffusing sound and wholesome views among the people. Let it not be forgotten that the hundreds and thousands of educational associations, now existing and working, have all had their birth within the last half century.

4. *Teachers' Institutes.*—This important auxiliary in the common school work had its origin in this State. The first body of teachers assembled in the capacity of a Teachers' Institute met in the city of Hartford in 1839. About forty teachers were in attendance and the entire expense of instruction, amounting to nearly $100, was defrayed by the Hon. Henry Barnard. Massachusetts was the first to grant State aid to Institutes and to incorporate them into its system of common schools. Now thousands of these important agencies perform their mission yearly, and thereby tens of thousands of teachers are annually better fitted for the discharge of their duties.

I am well aware that complaint is sometimes made that the exercises of the Institutes are not of a sufficiently practical character, and, in some cases, it may be so—but, notwithstanding, it is also unquestionably true that a vast amount of good has been

accomplished both by enlightening and quickening teachers, and in awakening the people to the better performance of their duties to the schools. And so we shall not hesitate to claim "Teachers' Institutes" as among the instrumentalities of the last half century that have contributed largely to the elevation of teachers, the enlightening of the people, and the improvement of schools.

5. *Teachers' Journals and educational works.*—Fifty years ago there was not, in all the land, an educational journal or periodical devoted to the interests of popular education, nor were there any books published for the aid of teachers, or bearing upon the work of the school-room. Now we have numerous periodicals designed for the aid of teachers, many of them ably conducted and well filled with instructive matter; and any teacher who so desires can procure many volumes written with special reference to the work of the school-room.

6. *School Supervision.*—Half a century ago the schools were conducted without any well directed and efficient plan of supervision. Now we have not only well digested and efficient systems of State supervision but also we have many city superintendents and town boards of supervision all accomplishing a great good for the schools.

7. *Discipline.*—In the matter of school discipline there has been a very great change and improvement. If we go back fifty years or longer, we shall find that there was an amount of severity in the management of schools that to-day would be considered quite barbarous and cruel. If we go back still further and go to Germany for examples we shall find that the schoolmaster's reign was one of terrible severity, not to say cruelty. Luther used to say that he was once whipped fourteen times at school in a single half day,—but did not say that all was not richly merited.

An obituary notice in a German paper, less than a century ago, thus reads: "Died; Hauberle, assistant teacher in a village in Suabia. During the 51 years 7 months of his official life he had, by a moderate computation, inflicted 911,527 blows with a cane, 124,000 blows with a rod, 20,989 blows and raps with a ruler, 136,175 blows with the hand, 10,235 blows over the mouth, 7,905 boxes on the ear, 1,115,000 *nota benes* (knocks) with the bible, singing book and grammar. He had 777 times made boys kneel on peas, and 613 times on a three-cornered piece of wood, and 1,707 hold the rod up. He had about 3,000 expressions to scold with, of which he had found two-thirds ready made in his native language and the rest he had invented himself." This is a curious piece of exaggeration, suggested probably by a sufferer.

But it was this side of the ocean that the following mode of discipline was invented and practiced. A recent writer says,—"When I was a boy, more than fifty years ago, it was my good fortune to attend a school taught by a brother of that eccentric, but celebrated itinerant preacher, Lorenzo Dow. Much that he *taught* me has passed away and thousands of queer conceits and oddities which struck my boyish fancy have been forgotten, but *one thing* remains green in my memory, viz: an original mode

of punishing, which he had christened "*spangazzeling.*" When a culprit was caught in the performance of an act of more than ordinary turpidity, he was stretched upon the floor, with his face to the ceiling. Five of his schoolmates were summoned as assistants; four found employment in stretching the victim's limbs to their utmost capacity, while the happy fifth boy, usually myself, because I was too *good* (*to much afraid*) to whisper, was assigned to the duty of holding his head steady; this feat I accomplished by holding his ears. The crowning act of the tragedy was consummated by the master with solemn air, words of reproof and advice, pouring a stream of water as nearly upon the end of the upturned nose as the state of his nervous system would permit. The stream of words and water were, from time to time, interrupted for the purpose of inquiring whether the thermometer of repentance was at the right level. Woe be to that boy, if he had hurt my little brother or had cheated at games, or if, in my mind, he had developed a streak of meanness, his ears were held so tightly that no word of reproach or question could enter and his supposed obstinacy was the occasion of renewed streams of wrath and water."

I am well aware that the cases cited may seem like extravagant caricatures, and yet those who can remember the discipline of our schools, as it prevailed fifty years ago, will see some degrees of resemblance. It was in 1836 that the writer took charge of his permanent school, and well does he remember that a teacher's first capacity was then gauged by the amount of flogging administered. Impressed by the public sentiment, he felt that he must inflict some corporal punishment daily, or fail to gain popular favor, and, for a time, he was faithful to his convictions. But he was "converted from his error" before the close of the first term, and, though he was in the school room constantly for the next twenty years, he verily believes that in the first three months of his teaching he was guilty of using the rod more frequently and more severely than in all the years beside.

But let me enumerate some of the modes of punishment that have fallen under my observation within the last half century; *flogging* with ruler, rod or rawhide; *standing* by the hour; *wearing a fool's cap;* sitting on a three-cornered piece of wood, or balancing on a stick of wood with the pointed end on the floor; holding a stick of wood at arms' length; bending over and holding a finger upon a given crack in the floor until ready to faint and fall; wearing a split stick upon the nose or ear, having the ears boxed or the hair pulled. These and other methods have been practiced within fifty years. And then there was still another mode which prevailed when we were a pupil in school. If it should seem to you as too severe and barbarous, you will please remember it was only resorted to for us larger boys, to whom it was not always an easy matter to apply flagellation. When all other measures failed to be effectual, as a last resort, we, poor fellows, were obliged to leave our pleasant slab seats and go over and sit beside the larger girls,—thus compelling them, poor inno-

cent creatures, to share with us our punishment and degradation. But to their credit be it said that, according to our best recollections, they endured the penalty like heroines, never uttering a word of complaint, nor protesting against the great injustice of the transaction. But a longer and more intimate acquaintance with the dear creatures has convinced us that they abound in sympathy for the unfortunate and oppressed, and so we come better to understand why they so cheerfully shared with us our deep humiliation during our school days. Many of them found their reward, and held in lasting remembrance the time when they freely relinquished one-half their legitimate seat to some malefactor boy.

Without longer dwelling upon this point, we will say that with the progress that has been made in the character and qualification of teachers and the enlightenment of public sentiment, there has been a marked and most gratifying improvement in the discipline of our schools, so that now, though the best of teachers will occasionally meet with cases which call for the adoption of the severest measures, we shall find such cases the rare exceptions. Corporal punishment, instead of being hourly resorted to, as of yore, is now the good teacher's strange work, resorted to only in desperate cases. We shall therefore not hesitate to assert that in the management and government of our schools, at the present day, we are far, very far, in advance of the schools as they were in the early part of the present century and previously.

8. *In the branches taught and in methods of teaching there has been decided gain.*—Fifty years ago the number of branches taught in our schools was very limited, and the teaching was, almost exclusively, confined to the language of the text-book,—a mere routine of question and answer, both in the words of the book. No effort was made to train pupils to *think* and investigate for themselves, nor is there at the present day to the extent there should be. In teaching spelling, the written method, now so common and so highly approved, was scarcely ever practiced. Well does the speaker remember the peril that threatened him in his first school, forty years ago. It was his custom, in part, to require pupils to write their spelling exercises. This plan was adopted on the first official visit of the chairman of the school committee. To this dignitary the method seemed to be a very foolish one, and so impressed was he in this direction that, without delay, he called a meeting of his associates for the express purpose of annulling the teacher's certificate. But much to his astonishment and the teacher's relief, the members expressed their hearty approval of the new method, and from that time till the present it has been approved in that town, and is now regarded with great favor by most educators.

Drawing, now so happily approved, had no place in the schools of a half-century ago. Indeed it was a "contraband" branch, and any pupil detected in an attempt to draw, upon his slate, the picture of a man, horse, cat, dog, or any other animal or thing, was sure to incur the displeasure of his teacher, manifested, not unfrequently, by a pretty severe "box on the ear."

Vocal Music is another branch which received no attention in the common schools of fifty years ago. Now instruction is given in it in most of our schools, and it contributes largely to the pleasures of school life. How often, when a spirit of disquiet, perhaps of unhappiness, takes possession of a school, will a sweet song tend to bring peace and restore a spirit of order and happiness! And yet, be it remembered, singing, which is so pleasant and so helpful, is one of the modern branches which has been introduced into our schools, but not without opposition. The time devoted to this exercise is helpful in many respects. By its pleasant influences, it cheers and animates pupils for the pursuit of the less attractive studies,—even as martial music in the army tends to alleviate the tediousness of marching.

9. *Female Education.*—There is no other particular in which a change so great and fraught with so much promise for good, has taken place as in that pertaining to the education of females. Fifty years ago it was not deemed essential to afford to girls any advantages for acquiring an education beyond the merest rudiments as taught in our common or district schools. It was not only felt that it was useless for them to study the classics and higher mathematics, but it was also thought that they lacked capacity to pursue these branches. But a great change has taken place, both in public sentiment and public action, in relation to this subject. It has been fully demonstrated that girls are every whit equal to boys, in all branches of education. But not until very recently has anything like a collegiate course of instruction been open to young ladies. Our Normal Schools have trained thousands of them for the work of teaching,—a work for which they possess admirable traits and qualifications. More and more are they coming to occupy important positions as teachers, and they will continue to prove a power for good and a blessing to the community.

To us of the present day it seems hardly possible that female education was ever so much neglected; but such was the fact, both in this country and in Europe. In the life-time of Sidney Smith, that remarkable man wrote one of his most vigorous papers with the hope of awakening the interest of his countrymen in favor of the higher education of females. Now, who can estimate the immense good that will emanate from the establishment and support of such institutions as Vassar, Smith, and Wellesly Colleges?

But I will not further pursue the subject. Enough has already been said to prove that great progress has been made in education within the last half-century. Let us not be unmindful of the immense responsibility that is thrown upon us by the advancement of the past. Inasmuch as our schools and other institutions of learning come into our care in a greatly improved and elevated condition, let us not forget that it is our bounden duty to labor with all diligence and wisdom, not merely to sustain them in their present high condition, but also so to foster them that we may hand them down to those who come after us, greatly improved

through our agency. All works of reform and improvement should go forward with constantly accelerating speed. May we, as members of the Connecticut State Teachers' Association, and as co-workers in the great and good cause of popular education, ever gratefully acknowledge what our predecessors have done, and manifest our appreciation of *their* work by a vigorous prosecution of *ours*, as received at their hands. And may we so discharge the duties that devolve upon us, that when we are called to give an account of our stewardship, we may hear from the great and good Master,—the Head Master over all,—the soul-cheering words, "*Well done, good and faithful servants.*"

HOW FAR SHOULD THE STATE EDUCATE?

By Henry E. Sawyer, Superintendent of Schools, Middletown.

This question may be taken in two ways. It may be asked, How far should public instruction extend in breadth? For how large a part of its children and youth ought society to provide means and opportunities of education? To the question thus taken, three answers suggest themselves, viz:

First. That the State should withdraw entirely from the business of instruction.

Second. That it should educate those whose services it may need, for example, as officers in the army or navy.

Third. That it should provide for all its children opportunities for education, raising funds to meet the expense thereof by taxes levied on all the property of all its members.

The first of these answers will receive attention further on. The second is not often given, and the opinion embodied in it is not entertained to any considerable extent. The third represents the position which is generally held by intelligent persons, and states the practice of the most liberal and progressive, as well as of some of the wisest and strongest governments. Doubtless we all believe the position to be correct. We agree in considering it to be the duty of a State to maintain a system of public schools adequate to the instruction of all its youth.

But some do not thus believe; and those who do are not agreed as to how far education should be carried in the public schools. In the opinion of some, the State should teach no more than reading, writing and a little arithmetic. Some knowledge of these branches they see to be almost indispensable. They call such knowledge practical. They think it well that opportunities for gaining it should be offered to all freely.

A vast majority go further than this. They recognize the fact that every addition to one's store of useful knowledge increases his power; that all culture and dicipline which makes one able to employ muscle, intellect, and will, to better advantage is in the highest degree practical. Some of these would have the State give instruction in drawing and music, in languages, sciences, and literature. Others would add to this till they had made colleges, universities, and professional schools free to all, because maintained

at public expense. They agree only in demanding of the public schools something more than merely elementary instruction. For this reason they may be classed together as giving a second answer to the question how far education should be carried by the State.

Then there is a third answer, identical with the one first mentioned above, which is that the State should give no education whatever, except, possibly, as it furnishes food and fuel to those who are too poor to provide for themselves.

This answer requires a little examination; for if it be correct it ends the discussion of my theme altogether, and if false it may be full of peril to the interests of education and of liberty. It is openly and boldly proclaimed in various quarters. It challenges the believers in public schools to give reasons for their faith. I am not aware that any part of our own State has been seriously affected by it. On the contrary the sentiment in favor of universal education at public expense appears to be stronger and more general in Connecticut than it has been for fifty years. But we may not hope that the invisible boundaries of a State will fence out ideas, or stop the growth of principles good or bad.

Those who would destroy the public schools entirely are not very numerous. Here and there a rich man, to whom school-taxes seem an intolerable burden, is among them. He may have no children for whose education he would pay on the system of individual responsibility, or he may have educated his sons and daughters already at his own cost, and now he asks, as though it were a question that could not be answered, "Why take my money to educate other people's children, any more than to buy them shoes or flour?" Here may also be found a few who through generations of scholarly and refining culture have become somewhat exclusive in their feelings and tastes, somewhat removed from practical sympathy with those who toil in less favorable circumstances, or who vegetate and suffer in the lower strata of society. They shrink from exposing the children of their tender nursing to the contacts and conflicts of the public schools. A few shoddy aristocrats, aping with newly gained wealth that refinement, which, like the great elms on yonder Green, can neither be bought nor built, but must grow through scores of years, are here. For them the schools of the State in which rich and poor meet together, without respect to race, color, or previous condition, are too common and democratic. But though they do not all together constitute a large class, they have some power. Wealth, education, high social position, however gained, give influence. And if their hostility to all systems of public instruction be neither justifiable nor dangerous, it cannot be too thoroughly guarded against. It is wise occasionally to restate distinctly, and to bring before our minds as clearly as possible, the reasons for our belief that public schools have a right to live.

What then is the State, about whose right and duty to educate this question is asked? Not Connecticut or New York, Massachusetts or Virginia, but the organic social life into which we are born, and in which, with exceptions too rare to deserve notice, we

must live and act and be acted on. This organic social life which we call human society, or the State, is not something which men make, as they build houses or form partnerships. They may change the means through which it enunciates or executes its will; but the social state existed before all human constitutions, and it would exist if they were all annulled. Philosophers theorizing about the origin of society used to say that it sprang from what they called a "social compact." They declared that when men entered into society, they surrendered some of their natural rights for the sake of the general good.

This notion had a charm for those who, in the last century, had risked their lives in revolt against the monstrous claim of the divine right of kings, and it found its way as a fundamental truth into the Bill of Rights of some States. But the phenomena of society justify no such hypothesis. The fact is, we naturally come into society, and there we naturally belong. Of course, then, an individual has no natural rights which are inconsistent with the existence of society, or whose exercise would be detrimental to its welfare.

Again, the State is not the existing government, either in its administration or its form, its officers or its constitution. Legislatures and governors, congresses and presidents, names and forms of government may change, but the State loses none of its rights, is freed from none of its obligations.

Human society, which we call the State, is of divine ordaining. Its outward form rightfully changes in obedience to the people's will. Its spirit and essence are deathless as the race. It is an organic whole, and not a loose aggregation of unrelated units. It is vital with a life which it has no authority to surrender. It has certain rights. It rests under some obligations. It is under obligation to live, and so has the right of self-defense and self-preservation. It is bound to see that justice is done between man and man, and that every one of its members is protected in the enjoyment of his rights. It must prevent trespass, protect property, reputation and life. It must maintain hospitals, alms-houses and prisons. These and other obligations resting on society imply rights corresponding in character and extent. It is surely as lawful to prevent the development of criminals as to detect and punish them when grown. If the weak and helpless can be rendered self-supporting, it is better than to take care of them at public cost.

The bearing of these principles on the question before us is evident. We believe that education by systems which a State may properly adopt and in methods that the public may rightly use, can be made, to some extent, a safeguard to the public welfare and to the social health. It increases in individuals the capacity for supporting themselves and their families. It trains to habits of obedience and self-control, and diminishes the amount of crime. Without education men are not fit to discharge the duties of citizens, either in private or public station, in peace or war. Because ignorance tends to increase and education to diminish poverty and crime; because a State needs intelligent officers and

peaceful people; and because it is the duty of society to guard the rights and seek the welfare of its individual members, it is the duty of a community to maintain a system of public instruction adequate to the education of all its youth. On these grounds, our State, like many others, supports public schools. To the rich man and to the poor man it sends the assessor and the collector, and each has to pay his tax. It assesses this tax not only on the property of voters, but as well on that of women and minors, who have no voice in directing the expenditure of the funds thus raised.

We believe this general taxation for the sake of universal education to be just and right. But any reasons of public policy and public safety which justify it, any considerations of benevolence which warrant it, justify and demand the taking of another step, which must be taken soon and generally, and with the same sort of thoroughness with which taxes are assessed and collected; and that step is to make education, to some extent, compulsory. If the State may say to a rich man, "Give me of your money that I may train and educate those who are soon to be my masters," surely it may say to a poor man, though it cause him some inconvenience, and to a vicious man, even though it may diminish his means of indulgence, "Give me of your children's time, that I may qualify them rightly to discharge the duties of citizenship and wisely to exercise the powers of government." Tax-payers have a right to demand that the opportunities for education which they provide shall be fairly improved, and if any children are growing up in ignorance the State should interpose. With watchfulness that cannot be evaded and power that cannot be resisted, it should see that its generous provision be not squandered, its wise design defeated through the inefficiency, wrongheadedness, or parsimony of parents. Logically this conclusion cannot be avoided. Practically it must be reached, or public schools fail precisely at the point where success is most essential, failure most dangerous.

From multitudes of children the State has nothing to fear, but everything to hope. For they are growing up under the wholesome influences of well-ordered homes. In these they learn obedience. In crude and childish fashion they catch glimpses of the majesty of justice and the awful sanctity of law. Embodied in the mother's form walks among them the matchless beauty of purity and virtue. At the proper age they will receive a decent education, whether there be public schools or not

But what of the neglected and the homeless? What of those worse than homeless whose homes are haunts of vice, and whom parental training makes prematurely shrewd and bold in crime? This class is large enough to be dangerous if not cared for. It has representatives in every city and large village. If allowed to complete the course they are now pursuing, what mischiefs, many and terrible, will they not work in society; what undermining and weakening of its foundations, what overthrow of its entire structure may they not compass! Society has no right to risk

such dangers, even if it has no regard for the welfare of these unfortunates. In self-defense it must educate.

One of the criticisms under which the enemies of public schools veil their hostility is that the schools attempt too much; that they undertake to carry the work of education further than it is reasonable or just for the public to carry it. And some who would do nothing to destroy or weaken the schools, some who are thoroughly their friends, are asking whether there is not some justice in the criticism. They admit, honestly or otherwise, that the State should provide elementary instruction in free schools for all its children. They would have this given for brief periods, in cheap school-houses and by cheap teachers.

As against these we claim that the State should maintain free schools for secondary, or High School, instruction, and that in them it should offer to all its youth an education as extended as its pecuniary ability and the density of the population in a given locality may allow; at least till it reaches the point where education becomes technical and professional rather than general.

To do this involves no inconsiderable expense. Costly buildings must be erected, valuable apparatus provided, and numerous and highly educated teachers employed. Besides, if this is to be done, the primary or elementary schools must aim not merely to give some little knowledge of the rudiments of education. Their work must be carefully arranged to do this in such a way as shall make it a suitable preparation for the instruction and study which are to follow. This requires better teachers, better buildings, more apparatus and longer terms in the elementary schools, and careful supervision of them by competent persons. Now the opponents of public schools say that for the State at such cost to maintain free schools for secondary education is useless, hurtful, or unjust.

High schools are useless, say their enemies, because the knowledge of higher branches which pupils acquire in them is usually too little and too superficial to be of much value, and because that in the attempt to gain it thorough familiarity with practical and necessary studies is sacrificed.

I believe proper investigation would show that neither branch of the accusation is true to any considerable extent. We cannot ascertain what kind of readers the people were a hundred years ago, but we have some means of judging of their skill in writing, spelling, and ciphering. If the appeal be made to old records and they be compared with the work of pupils shown in the centennial exposition, I have no fear as to the decision. And it must be remembered that these old records were made by the better educated men in the towns and parishes. To make the test a fair one we should look up the letters and private account books of common people, both men and women, and compare with them the writing, spelling, and figuring of the present. I am sure that one who does that will, if he is honest, say no more about the inferiority of present attainments in the common branches as compared with those of the past.

Another objection sometimes urged against High Schools and the education given in them, is that many children of the poor and of those who live by manual labor, are educated too highly—educated above their rank and station in life.

I will not delay to show how the abominable spirit of caste underlies this objection. Doubtless there is a good deal of disinclination to hard and steady work. A great many persons want to get a living without earning it. Multitudes try to obtain positions in which they can wear stylish clothes and jewelry. Some who have never attempted to do it think mind-work is easy. So they refuse to be useful, as they might be in some calling which demands the exercise of muscle, and attempt to crowd into positions which require more mental capacity and culture than they have, or positions which might be well filled by persons of less physical force. Stout men rather measure ribbons and peddle peanuts than raise from the soil corn to keep themselves from starving. They push themselves into positions for which they are not fit, and when they fail, innocent ones suffer with them. They occupy easy positions whose duties weaker men might perform, and so the weaker suffer in enforced idleness. But this is laziness and not education. It would have prevailed in these years if there had been no schools, and it would have wasted the nation's wealth and tarnished the nation's honor, as it has done and is still doing.

Possibly teachers have not done all they might have done to inspire their pupils with a love of labor, to lead them into the joy which follows the conquest of difficulties, to kindle in them ambition to do well, not easy things, but things which call for the exercise of great strength, skill and endurance. But however this may be, it is safe to assert that no class in the community has done more than teachers have to resist the lazy and shirking tendencies of the times; and that the attempt to master the higher branches of learning, if made in a well-managed school, is very likely to convince young people that success cannot be had for nothing; that achievement costs labor and perseverance. Indeed I believe it to be true that those who imagine they have too much education to get an honest living by honest work are not the ones who have learned all that is taught in the schools, but those whose perversity, indolence, or stupidity has caused them to drop out by the way.

Again, it is objected that for the State to maintain free high schools is extravagant; that the expense of such houses, apparatus, teachers, and supervision as are needed to make secondary education successful is too heavy a burden on the taxpayers. This is a serious charge. What is extravagance? Literally a wandering beyond, that is, beyond some proper limits. To determine whether one is extravagant we need to know the limits which he may not reasonably go beyond.

In the expenditure of money, reasonable limits may be determined either by the ability of him who incurs the expense, or by the value of that for which it is incurred. A man who pays

more for an article than he is able to pay is extravagant. The price may be less than the value of the article; still it is beyond his means and he is not justified in paying it. An exception is however to be made to this statement in the case of such things as are necessary to the support of life. Food and fuel must be had even if the means with which to pay for them are not in hand.

If then it should be shown, as it very easily might be, that something more than elementary education is necessary to the welfare and even the life of the State, the question of its extravagance would be decided. But I will not press this point. Admit that secondary education is only desirable, not essential, to the State; that it is to be classed not among the necessaries, but among the comforts and adornments of life. Is the State able to pay for it? I am aware that taxes are in many places rather heavy, and that there is much financial embarrassment and much poverty. But consider the immense sums spent in public works merely for purposes of display, or by individuals for houses and living. Think how much the people find themselves able to expend for travel, how much for summer residences, yachts and fast horses, or even for cigars and watch chains, for ruffles and ear-rings, and then judge whether the country is able to support good schools. Go a step further and compute the cost of the country's vices. Take but a single one of them, intemperance, and, leaving out of the account all expenses, which are only indirectly chargeable to it, reckon up the sums actually paid each year for intoxicating drinks. Then by the side of the astounding and frightful amount set the total annual cost of all the schools, colleges, and universities in the land, and say whether the country is paying more for education than it is able to pay.

But there is another thing which must be considered in determining whether a given expenditure is extravagant or not. It is the value of the article for which the expense is incurred. To pay for an article greatly more than it is worth is extravagance. Will the application of this test to the high schools justify their support? Do the schools cost more than they are worth?

The cost of schools in a town or a State can be ascertained exactly and stated in dollars and cents. Their value cannot be even approximately estimated, for we have no gauge with which to measure the worth of intelligence and education and culture and skill and character and habits of obedience and patient labor. These things "cannot be gotten for gold, neither shall silver be weighed for the price thereof." And these priceless things are the legitimate fruits, the natural results of well ordered and sufficiently comprehensive schools. But while the highest benefits which such schools confer on the community cannot be measured, they have other and lower elements of value which can be appreciated if not measured.

They have a commercial or money value because they supply a certain positive and rather extensive demand—I mean the demand for a higher education than can be obtained in elementary schools. *Many* people require for their children such an education, and they

will have it. They wish them to be fitted for mercantile, mechanical or scientific pursuits, or for college. They must have instruction in mathematics and literature, in natural and physical science, in ancient and modern languages, and in the rudiments of the fine arts. This is the demand. I do not say whether it is wise or foolish, only that it exists. It is as real as the demand for flour or tobacco, and hence that which supplies it has a money value as truly as those commodities have.

Now it is a matter of observation, too common to need mention, that good schools attract to a community which maintains them, persons looking for places in which to locate, who bring with them property and influence. Here is a return in kind for the money expended on schools. But they may save a town in other ways more than they bring to it in this way, for they keep at home during the period of secondary education many young persons who would otherwise be sent away at great expense for travel, board, clothing and tuition. Then great numbers will obtain a high school education if they can do so while living at home who would never go abroad for it. Lack of enterprise or of means, or an unwillingness to deprive their children of parental oversight at so critical a period of their lives, will prevent many from giving their children such an education as they desire if it can be obtained only at a distance from home. And in this way, by bringing some higher education within the reach of larger numbers, and thus increasing the producing power of a community, do high schools pay.

I have spoken of some of the direct and measurable advantages which a community may gain from the maintenance of free schools for advanced education. But the indirect advantages flowing from them are perhaps even greater than these. The higher studies and more advanced classes in a school or system of schools exert an immense attraction both laterally and vertically. They draw in from all about them, and they draw up from younger classes ambitious, capable and high minded youth, whose influence on their school-mates is of great value. Whether it pays to introduce or retain a given study in school cannot always be determined by the rules of arithmetic.

Perhaps an illustration may make my meaning clearer. In one of the smaller cities of New England a member of the School Board, a graduate of Yale College, raised the question whether the city could afford to teach Greek in the high school. He saw that the classes in it were small, and that they could not be properly instructed by cheap teachers. Dividing the cost of the instruction by the number of pupils, showed a rather high high price for tuition, in view of which my friend inquired whether it would not be cheaper and better for the city to pay the tuition of those who wished to study Greek at a good academy. He did not propose to say to a citizen who wished to fit his child to be an accountant, a teacher, or an engineer, "You may do it in the public schools," while depriving his neighbor who preferred to send his son to college of the opportunity to give him a prepara-

tion; nor did he propose to say to a man, "We will prepare your son for a scientific, but not for a classical college." His question merely was whether, while treating all alike, some cheaper method might not be found for satisfying the just demands of some. He did not see, what if he had been more intimately acquainted with the subject he would have seen, that even his plan would be unjust to the people and injurious to the school if it should be adopted.

It would be unjust because, even if the tuition were paid, many could not or would not send their sons to a distant academy to prepare for college, and so would be forced to choose some other plan of life for them. It would be injurious to the school because it would compel persons who were determined to give their sons the advantages of a liberal education to send them elsewhere. This would deprive the school of the very pupils who were most likely to be earnest and enthusiastic and to exert a healthful influence. If these went, their associates of kindred spirits would go with them, even if they were not studying the classics. Thus many families, and those among the most influential, having no children in the public school would feel no direct interest in it, but would exert their influence in favor of the school in which their children were.

In the case of which I have spoken, I am not aware that the proposition to exclude the classics was ever seriously entertained, even by the gentleman who made it. Certainly it was never carried into effect, and there has been no time when, in that city, one man might not have his son fitted for college at the public schools as well as another his for the scientific school or for entrance on a mercantile life.

How much then should be taught in the public schools? I answer, not by saying algebra or chemistry or Greek or German, but as above, so much as the density of population and the wealth of the community will allow, and I base this answer on a few very simple principles, which I will briefly enunciate in closing.

1. Some in every community are able to give their children advanced education, and in one way or another will do so.

2. The expense of public schools, be it much or little, is mostly paid in the form of taxes by the wealthier portion of the community.

3. To limit the instruction given in these schools to the mere rudiments of education would practically exclude from all share in their benefits the rich whose taxes contribute so largely to their support, and the vastly more numerous class in moderate circumstances who aspire to secure the best obtainable education for their children. For none but the very poor or the very careless would be satisfied with schools thus limited in their scope; and those who were not satisfied with them would be compelled, after paying their taxes for the public schools, either to support private schools or to send their children away from home to be educated.

4. Whence it follows that while the schools of the State should be free even to the poorest, they should be good enough to answer the reasonable demands of the middle and wealthy classes.

APPENDIX.

STATISTICAL TABLES

COMPILED FROM THE RETURNS OF THE ACTING SCHOOL VISITORS,

SHOWING THE CONDITION OF

COMMON SCHOOLS IN CONNECTICUT,

DURING THE YEAR ENDING AUGUST 31, 1876.

PRELIMINARY NOTE.

Special pains have been taken to make the following tables as correct as possible, and though perfect accuracy is not attainable, they may be considered as giving a just view of the condition of the public schools. These tables are based upon the returns which the law requires the school visitors of every town to submit each year to the Secretary of the State Board of Education. The school visitors receive their information, to a considerable extent, from the district committees, and they again from the teachers whom they employ. To facilitate the collection of these returns, and to make them as complete and correct as possible, School Registers are provided, at the expense of the State, for all public schools. They may be obtained from the Secretary of the State Board of Education.

EXPLANATION OF THE STATISTICAL TABLES.

Column No. 1.—The towns in each county arranged alphabetically, county towns being placed first. In the towns of New Haven, Norwich and Middletown there are districts which make independent reports, and these reports are given separately.

No. 2.—The population of each town according to the United States Census of 1870.

No. 3.—The Grand List of each town, as given in the State Treasurer's Report to the General Assembly, May, 1876.

No. 4.—The number of school districts in each town.

No. 5.—The number of public schools in each town.

No. 6.—The number of departments in the public schools counting each school room of a graded school as one department.

No. 7.—The average length of the schools, in days and decimals of a day.

No. 8.—The number of children between four and sixteen years of age enumerated in each town in January, 1876; the basis of distributing the income of the School Fund and the State Appropriation to the several towns.

Nos. 9 and 10.—The number of children registered as attending public schools in winter and summer respectively.

No. 11.—The number registered over 16 years of age.

No. 12.—The number of *different* scholars registered in the public schools during the year reported; in other words, the number of children who attended public schools *some part* of the year.

No. 13.—The number of enumerated children attending any other school than the public school.

No. 14.—The number of children between four and sixteen years of age who attended no school of any kind during the year.

Nos. 15 and 16.—The average attendance in winter and summer respectively.

Nos. 17, 18, 19 and 20.—The number of male teachers and female teachers employed in winter and summer respectively.

Nos. 21 and 22.—The average wages per month of male and female teachers, including cost of board, when that was supplied by the district.

No. 23.—The number of teachers who have taught the same school two or more successive terms.

No. 24.—The number of teachers who were teaching for the first time.

No. 25.—The amount of money received by each town from the School Fund and State Appropriation. Of the amounts in this column, two-fifths came from the School Fund income, and three-fifths from the State Treasury.

No. 26.—The amount of income from the Town Deposit Fund in each town.

No. 27.—The amount of income from local funds.

No. 28.—The amount of money appropriated for schools from town tax in each town.

No. 29.—The amount of money raised for school purposes by district tax.

No. 30.—The amount of voluntary contributions for teachers' board, fuel, or other expenses.

No. 31.—The amount of money raised for school purposes from other sources than those previously named.

No. 32.—The total amount of money received for public schools from all sources.

No. 33.—The amount expended for teachers' wages, including board.

No. 34.—The amount expended for fuel and incidental expenses.

No. 35.—The amount expended for repairs of school buildings.

No. 36.—The amount expended for other objects than those previously mentioned.

No. 37.—The total amount expended for public schools.

The totals in column 37 include money expended for new school houses, also the amount expended for libraries and apparatus. The columns containing these amounts are omitted from these tables for want of room, but may be found on pages 148 and 149.

Tables of averages and percentages, showing the relative position and rank of the towns in various particulars, may be found upon pages 150 to 173.

HARTFORD COUNTY.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
TOWNS.	Population. 1870.	Grand List. 1875.	No. of Districts.	No. of Schools.	Departments.	Av. Length.	SCHOLARS.									TEACHERS.						Continuously Employed.	Beginners.
							Enum. Jan. '76.	Registered.			Diff'nt Schol. Reg.	Private School.	In no School.	Av. Attend.		Male.		Female.		Wages, Month.			
								W.	S.	Over 16.				W.	S.	W.	S.	W.	S.	Male.	Fem.		
Hartford,	37,743	$48,516,668	10	16	119	197.98	9,598	6,416	6,267	381	7,682	1,337	960	5,030	4,638	20	20	114	114	$186.90	$46.55	128	2
Avon,	987	534,203	7	7	7	152.14	248	213	170	5	239	3	11	167	120	1	0	6	7	36.00	32.15	5	2
Berlin,	2,436	1,122,321	9	10	11	172.32	580	402	394	9	504	22	72	301	273	2	0	9	11	52.50	39.61	8	1
Bloomfield,	1,473	882,883	9	9	11	145.98	309	272	191	18	307	11	15	220	141	2	1	8	10	50.67	27.44	6	2
Bristol,	3,788	1,952,162	12	12	17	180.00	992	759	741	30	942	10	66	576	541	3	3	17	17	96.00	39.35	13	3
Burlington,	1,319	402,105	9	8	8	150.00	302	249	210	22	294	3	10	171	147	7	2	1	6	33.16	24.29	2	6
Canton,	2,639	1,220,886	8	8	12	178.50	511	469	408	23	536	8	11	387	332	2	1	12	13	92.78	35.36	10	0
East Granby,	853	489,858	6	6	6	151.67	173	145	108	9	174	5	0	110	83	1	1	5	5	32.80	30.35	2	1
E. Hartford,	3,007	1,606,482	10	10	15	181.67	725	581	501	20	699	15	33	448	359	6	6	9	9	82.64	39.12	15	2
East Windsor,	2,882	1,223,490	11	11	16	177.50	749	634	570	31	724	14	36	499	410	3	2	14	15	86.44	40.08	13	3
Enfield,	6,322	2,503,666	14	14	26	185.47	1,665	1,018	951	78	1,208	373	167	778	725	8	3	20	25	92.70	40.89	23	11
Farmington,	2,616	1,737,661	7	9	13	186.54	662	516	439	5	577	28	76	398	310	2	2	12	12	110.00	40.75	13	4
Glastonbury,	3,560	1,163,801	18	18	20	177.63	812	581	478	7	691	77	50	464	343	4	1	16	18	35.20	33.58	13	9
Granby,	1,517	542,338	10	10	11	145.64	351	263	217	16	342	5	16	195	153	1	0	10	10	24.00	27.92	5	0
Hartland,	789	292,102	9	9	9	128.89	151	156	122	25	202	0	0	123	86	4	0	5	9	35.13	24.55	0	0
Manchester,	4,223	2,295,601	9	9	18	186.67	1,250	867	822	39	1,090	32	158	644	571	4	3	14	15	81.14	47.00	18	5
Marlborough,	476	155,805	4	4	4	130.00	112	81	66	1	99	0	14	61	53	0	0	4	4	------	29.50	2	2
New Britain,	9,480	4,592,952	1	10	32	200.00	3,176	2,185	2,174	66	2,516	97	629	1,705	1,764	3	3	35	37	153 33	41.38	31	4
Newington,	778	550,932	4	4	5	160.25	232	152	153	0	192	11	29	111	103	2	0	3	4	40.00	33.43	2	4
Plainville,	1,433	864,754	1	2	6	200.00	391	305	277	17	363	7	38	225	217	1	1	5	5	100.00	38.40	5	1
Rocky Hill,	971	389,167	4	4	5	180.00	267	210	167	7	248	5	18	145	104	2	0	3	4	40.00	30.74	2	2
Simsbury,	2,051	1,087,820	12	11	13	160.00	476	399	360	22	503	5	18	299	258	6	1	7	12	49.71	32.00	8	10
Southington,	4,314	2,131,607	11	12	22	178.64	1,199	993	903	59	1,149	0	109	740	637	7	7	14	15	99.08	39.31	17	4
So. Windsor,	1,688	1,360,583	10	10	10	180.50	362	332	307	5	373	6	11	257	216	0	0	10	10	------	43.70	10	2
Suffield,	3,277	2,180,260	11	11	14	178.93	708	567	518	17	704	8	41	463	403	2	1	12	13	51.33	46.40	15	0
W. Hartford,	1,533	1,885,571	8	9	9	158.11	388	310	253	9	335	9	57	220	184	1	1	8	8	67.15	43.14	7	2
Wethersfield,	1,915	1,147,135	6	7	8	194.13	398	304	261	10	376	25	7	211	186	1	1	7	7	120.00	27.85	6	0
Windsor,	2,783	1,471,308	10	10	14	183.21	743	607	506	28	723	30	30	457	401	7	4	9	10	60.92	41.26	7	2

TOWNS.	25	26	27	28	29	30	31	32	33	34	35	36	37
	RECEIPTS.								EXPENSES.				
	School Fund, etc.	Town Deposit.	Local Funds.	Town Tax.	District Tax.	Volunt'y Contribu-tions.	Other Sources.	Total.	Teachers' Wages.	Fuel, etc.	Repairs.	Other Objects.	Total.
Hartford,	$23,995.00	1,408.88	-------	68,735.75	82,375.44	-------	11,512.03	188,027.10	108,073.26	16,352.09	5,416.75	30,554.69	*169,723.64
Avon,	620.00	238.20	113.67	1,048.16	430.00	-------	-------	2,450.03	1,764.40	192.38	-------	89.50	*2,446.28
Berlin,	1,450.00	176.52	301.96	2,519.21	520.00	-------	564.37	5,532.06	3,846.74	594.45	528.98	323.49	*5,332.48
Bloomfield,	772.50	330.00	-------	1,330.73	1,718.00	-------	-------	4,151.23	2,592.89	227.47	238.00	54.00	*3,125.36
Bristol,	2,480.00	317.00	125.00	6,839.84	2,253.78	14.22	458.95	12,488.79	8,707.17	1,018.42	609.15	1,706.10	*12,055.84
Burlington,	755.00	71.84	24.14	1,180.62	76.60	-------	-------	2,108.20	1,985.90	155.08	76.60	52.00	2,269.58
Canton,	1,277.50	596.67	-------	2,655.86	2,515.73	20.00	260.80	7,326.56	5,407.00	753.43	352.88	708.99	*7,272.30
East Granby,	432.50	131.41	-------	1,015.13	-------	19.54	15.00	1,613.58	1,456.62	114.51	7.56	30.00	*1,643.70
East Hartford,	1,812.50	370.58	-------	6,540.94	327.44	37.00	635.24	9,723.70	7,722.01	775.09	701.17	428.93	*9,723.70
East Windsor,	1,872.50	219.75	77.98	5,776.60	1,500.00	11.67	110.69	9,569.19	6,829.55	973.88	181.71	1,577.50	*9,584.31
Enfield,	4,162.50	360.62	49.64	9,699.69	6,195.45	-------	115.52	20,583.42	12,931.66	2,587.04	813.83	1'159.39	*17,517.71
Farmington,	1,655.00	292.95	682.19	4,083.73	3,519.12	-------	110.60	10,343.59	6,736.06	792.00	485.07	'668.70	*8,748.78
Glastonbury,	2,030.00	765.14	-------	4,090.26	137.33	35.00	70.15	7,127.88	5,872.75	664.87	30.13	468.76	*7,127.88
Granby,	877.50	296.12	-------	1,281.38	633.00	44.00	-------	3,132.00	2,203 50	227.39	-------	119.10	*3,076.02
Hartland,	377.50	188.00	-------	1,124.52	-------	78.25	-------	1,768.27	1,584.00	112.42	5.50	66.00	1,767.92
Manchester,	3,125.00	418 20	-------	6,813.16	516.49	5.00	-------	10,877.85	8,931.93	1,224.43	641.48	224.39	11,022.23
Marlborough,	280.00	119.55	132.89	389.34	-------	-------	-------	921.78	799.12	47.70	-------	21.00	867.82
New Britain,	7,940.00	261.50	357.50	34,607.63	-------	-------	353.35	43,519.98	19,694.75	2,667.63	664.55	9,493.05	*43,519.98
Newington,	580.00	89.77	28 00	767.22	1,500.00	-------	-------	2,964.99	1,271.12	133.87	5.00	27.00	*2,936.99
Plainville,	977.50	-----	-------	2,629.23	-------	-------	107.18	3,713 91	3,116.80	239.54	120 97	230.00	*3,714.91
Rocky Hill,	667 50	177.19	-------	783 35	902.72	-------	-------	2,530.76	1,381.74	187.16	915.86	46.00	2,930.76
Simsbury,	1,190.00	234.06	37.40	2,521.81	445.00	18.95	50.00	4,497.22	3,842.30	366.97	36.00	223.50	*4,497.22
Southington,	2,997.50	330.59	-------	6,989.74	224.39	-------	1,578.01	12,120.23	11,422.60	1,208.96	296.08	161.00	13,088 64
South Windsor,	905.00	252.55	27.40	3,423.72	363.25	15.75	20.00	5,007.67	4,229.45	361.75	399.57	113.00	*5,133.52
Suffield,	1,770.00	391.00	-------	4,246.55	1,262.80	16.00	150.00	7,836.35	5,698.44	709.11	391.87	255.16	*8,180.58
West Hartford,	970.00	99 60	30.00	2,462.32	1,324.49	-------	110.33	4,996.74	3,461.00	393.20	108.55	191.25	4,154.00
Wethersfield,	995.00	214.62	1,031.10	1,640.38	-------	-------	11.00	3,892.10	3,118.35	441.06	195.04	81.06	*3,855.51
Windsor,	1,857.50	233.31	400.00	5,146.62	995.00	15.00	48.25	8,695.68	6,272.56	775.18	829.48	1,026.92	*8,977.14
Windsor Locks,	1,620.00	122.51	-------	3,710.31	-------	-------	-------	5,452.82	4,192.40	984.34	276.08	-------	*5,476 82
	$70,445.00	8,708.13	3,418.87	194,053.80	109,736.03	330.38	16,281.47	402,973.68	255,146.07	35,281.42	14,327.86	50,100.48	*378,371.62

☞ For explanations, see pages 127–129. * Including money for new school houses, and for Libraries and Apparatus, for which see pages 148 and 149.

NEW HAVEN COUNTY.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
TOWNS.	Population, 1870.	Grand List, 1875.	No. of Districts.	No. of Schools.	Departments.	Av. Length.	SCHOLARS.									TEACHERS.						Continuously Employed.	Beginners.
							Enum. Jan. '76.	Registered.			Diff'nt Schol. Reg.	Private School.	In no School.	Av. Attend.		Male.		Female.		Wages, Month.			
								W.	S.	Over 16.				W.	S.	W.	S.	W.	S.	Male.	Fem.		
New Haven City,	49,575	----------	1	24	158	200.00	12,629	8,895	8,513	274	10,532	1,535	901	7,291	7,441	14	14	185	185	$221.42	$53.90	166	23
" Westville,	1,265	----------	1	1	6	200.00	326	249	223	4	298	6	28	190	187	1	1	6	6	120.00	40.66	7	0
" complete,	50,840	$57,843.163	2	25	164	200.00	12,955	9,144	8.736	278	10,830	1,541	929	7,481	7,628	15	15	191	191	214.66	53.48	173	23
Beacon Falls,	*	358.876	3	3	4	180.00	153	115	110	0	123	0	43	78	72	0	0	4	4	------	30.50	2	0
Bethany,	*1,135	299,002	5	4	4	141.25	103	101	71	12	117	1	3	57	45	3	1	1	3	34.83	29.50	0	2
Branford,	2,488	1,238,400	1	8	14	200.00	731	575	536	19	701	0	49	420	361	2	2	12	12	87.00	31.19	12	1
Cheshire,	2,344	1,342,483	12	12	14	150.36	545	417	363	13	486	52	17	304	253	3	0	11	14	42.67	34.33	13	5
Derby,	8,020	3,733,489	6	7	31	200.00	2,543	1,883	1,904	70	2,284	141	188	1,428	1,427	4	4	32	32	135.00	42 92	34	0
East Haven,	2,714	2,203,935	1	8	10	205.00	683	510	423	18	621	25	55	367	309	2	2	8	8	74.00	43.50	7	3
Guilford,	2,576	1,465.698	11	11	15	166.67	553	499	377	63	554	15	56	380	262	4	1	10	15	60.00	30.85	9	4
Hamden,	3.028	1,736,099	14	13	15	199.67	745	522	492	12	622	48	136	373	305	2	1	13	14	40.00	38.90	15	1
Madison,	1,814	835,265	13	13	13	156.92	400	352	300	19	396	10	18	248	186	6	1	7	12	41.04	33.41	6	0
Meriden,	10,495	8,309,053	12	12	44	205.00	3,405	2,102	2,036	21	2,582	594	250	1,480	1,617	8	8	36	36	123.00	50.15	40	1
Middlebury,	696	362,381	6	5	5	141.00	160	126	111	6	146	6	7	86	70	1	0	4	5	28.00	27.33	3	4
Milford,	3,405	1,158,976	1	6	11	181.81	684	486	454	41	569	35	121	418	328	1	1	11	11	144 00	34.00	12	0
Naugatuck,	2,830	1,501,856	6	6	14	198.93	872	676	596	10	852	33	36	498	441	2	2	12	12	110.00	36.93	14	1
N. Branford,	1,035	505,602	7	7	7	153.57	231	196	167	14	225	21	17	145	132	2	1	5	6	40.00	34.23	5	1
North Haven,	1,771	802,345	8	8	8	172.50	406	280	247	30	345	42	45	196	148	2	0	6	8	35.50	33.57	5	6
Orange,	2,634	1,999,576	8	9	15	186.24	704	560	471	26	603	47	80	380	350	2	2	12	11	56.00	37.24	11	2
Oxford,	*1,338	411,765	12	12	12	138.33	236	200	185	13	254	5	3	144	115	3	0	9	12	27.67	23.05	4	5
Prospect,	551	186,510	1	5	5	138.00	77	65	68	4	79	0	5	46	52	1	0	4	5	27.00	27.00	1	2
Seymour,	2,122	877,943	1	8	8	191.88	499	382	367	18	480	0	37	296	268	1	1	8	7	100.00	37.07	8	3
Southbury,	1,318	704,700	9	9	9	165.11	283	238	165	17	278	20	22	164	109	2	0	7	9	33.00	24.69	4	4
Wallingford,	3,676	2,334,322	9	12	18	155.50	919	790	726	31	881	2	80	553	462	5	2	13	16	53.71	40.62	11	2
Waterbury,	13.106	8,081,943	10	21	43	193.39	3,470	2,345	2,223	22	3,052	307	146	1,745	1,780	6	6	44	44	60.67	38.48	42	11
Wolcott,	491	235,745	6	6	6	139.17	94	81	82	3	102	0	0	57	55	0	0	6	6	------	28.33	1	5
Woodbridge,	830	453,624	6	5	5	176.00	171	158	141	14	185	0	0	105	109	1	1	4	4	48.00	44.50	4	1
25 TOWNS.	121,257	$98,982,751	170	235	494	187.73	31.622	22,803	21,351	774	27.367	2,945	2,343	17,449	16,884	78	51	470	497	$109.25	$43.36	436	87

	25	26	27	28	29	30	31	32	33	34	35	36	37
TOWNS.	RECEIPTS.								EXPENSES.				
	School Fund, etc.	Town Deposit.	Local Funds.	Town Tax.	District Tax.	Volunt'y Contribu-tions.	Other Sources.	Total.	Teachers' Wages.	Fuel, etc.	Repairs..	Other Objects.	Total.
New Haven City,	$31,572.50	1,658.26	.....	56.395.77	103,206.04	.....	1,913.17	194,745.74	130,671.93	16,498.37	3,177.34	10,386.13	*168,884.76
" Westville,	815.00	42.81	.....	1,447.39	3,927.35	.....	15.00	6,247.55	3,764.45	676.44	177.88	761.29	*5,878.96
" complete,	$32,387.50	1,701.07	.....	57,843.16	107,133.39	.....	1,928.17	200,993.29	134,436.38	17,174.81	3,355.22	11,147.42	*174.763.72
Beacon Falls,	382.50	120.00	.....	787.47	60.00	.....	.....	1,349.97	1,165.47	98.75	35.00	50.75	1,349.97
Bethany,	257.50	113.84	.....	749.81	.....	.....	.....	1,121.15	995.35	84.00	.....	41.80	1,121.15
Branford,	1,827.50	222.93	50.40	4,202.50	.....	.....	.....	6,303.33	5,326.36	843.59	61.38	72.00	6,303.33
Cheshire,	1,362.50	258.43	.....	2,567.60	1,732.27	10.50	5.00	5,936.30	3,764.81	323.74	1,717.78	100.00	*5,916.83
Derby,	6,357.50	240.00	.....	8,315.25	9,106.64	.....	3,250.28	27,269.67	19,871.75	3,789.82	627 59	2,179.04	*28,531.70
East Haven,	1,707.50	190.83	.....	3,998.78	.....	.....	20.00	5,917.11	4,535.38	360.60	494.81	486.32	*5.917.11
Guilford,	1,382 50	361.20	.....	3,324.67	1,084.93	10.00	233.17	6,396.47	5.038.21	756.64	449.32	137.00	*6,396.47
Hamden,	1,862.50	256.73	.....	4.412.96	.....	.....	.....	6,532.19	5.801.65	522.54	.....	208.00	6,532.19
Madison,	1,000.00	313.98	24.11	2,597.56	.....	24.42	23.70	3,983.77	3,532.00	316.50	16.10	102.50	*3,983.77
Meriden,	8,512.50	414.08	.....	25,773.82	17,336.21	.....	127.23	52,163.84	27,183.69	4,073.33	4,472.03	5,757.87	*45,408.91
Middlebury,	400.00	126.00	.....	553.87	.....	.....	.....	1,079.87	961.50	86.87	.....	31.50	1,079.87
Milford,	1,710.00	302.29	186.70	2,981.52	.....	.....	.....	5,180.51	4,607.11	642.10	.....	258.80	*21,210.98
Naugatuck,	2,180.00	74.40	.....	5,956.13	4,200.00	80.00	20.00	12,510.53	6,596.00	835.68	50.00	1,763.20	*15,049.22
North Branford,	577 50	168.28	22.41	1,103.93	.....	62.35	89.27	2,023.74	1,769.69	187.60	9.85	45.00	*2,023.74
North Haven,	1,015.00	230.46	37.50	1,278.54	1.891.48	61.85	45.00	4,559.83	2,251.22	213.77	1.50	95.00	*4,558.22
Orange,	1,760.00	172.47	37.18	4,110.82	199.94	20.50	52.30	6,353.21	5,366.77	602.21	934.22	631.09	*7.621.99
Oxford,	590.00	260 84	22.93	1,331.74	.....	10.00	46.69	2,262 20	1,915.52	168.82	27.86	150.00	2,262.20
Prospect,	192.50	85.54	.....	763 46	.....	.....	.....	1,041.50	934.50	72.00	5.00	30.00	1,041.50
Seymour,	1,247 50	109.56	30.00	2.950.00	.....	.....	20.00	4,357.06	3,384.18	275.31	170.24	708.89	*4,578.62
Southbury,	707.50	239.93	.....	1,225.86	87.93	13.45	.....	2,274.17	1,896.20	221.04	87.93	69.00	2,274.17
Wallingford,	2,297.50	372.62	.....	4,686.86	5,522.73	5.00	269.70	13,154.41	6,781.13	773.68	289.65	4,934.25	12,778.71
Waterbury,	8,675.00	473.09	.....	8,112.39	10,685.00	.....	940.96	28.886 44	19,692.24	2,353.30	833.38	3.642.60	*26,801.52
Wolcott,	2 5 00	151.55	545 91	424 19	.....	12.87	.....	1,369.52	1,191.37	129.28	12.87	36.00	1,369.52
Woodbridge,	427.50	285.21	256.38	1,142.86	2,028.51	60.20	25.00	4.225.66	1 882.78	150.17	.....	70.00	*4.207.66
	$79,055.00	7,245.33	1,213.52	151,195.25	161,069.03	371.14	7,096.47	407,245.74	270.881.26	35.056.15	13,651.73	32,748.03	*393,083.07

☞ For explanations, see pages 127–129. *Including money for new school houses, and for Libraries and Apparatus, for which see pages 148 and 149.

NEW LONDON COUNTY.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
TOWNS.	Population. 1870.	Grand List. 1875.	No. of Districts.	No. of Schools.	Departments.	Av. Length.	SCHOLARS.									TEACHERS.						Continuously Employed.	Beginners.
							Enum. Jan. '76.	Registered.			Diff'nt Schol. Reg.	Private School.	In no School.	Av. Attend.		Male.		Female.		Wages, Month.			
								W.	S.	Over 16.				W.	S.	W.	S.	W.	S.	Male.	Fem.		
New London,	9,576	$7,132,454	1	9	27	200.00	2,052	1,576	1,537	60	1,896	40	176	1,358	1,326	4	4	41	41	$130.17	$34.97	45	2
Norwich Town,	-----	----------	1	1	4	201.00	318	210	210	9	262	30	35	169	167	1	1	4	4	100.00	40.00	5	0
" Central,	-----	----------	1	6	26	205.00	1,481	994	1,028	24	1,225	100	180	842	852	3	3	26	28	175.00	51.68	24	4
" W. Chelsea,	-----	----------	1	3	13	200.00	920	686	681	7	835	15	107	546	531	1	1	15	15	120.00	33.67	11	5
" other Dist's,	-----	----------	9	10	31	194.52	2,085	1,336	1,325	9	1,642	125	330	1,054	1,050	8	5	23	26	80.23	32.73	25	9
" complete,	16,653	15,089,792	12	20	74	199.31	4,804	3,236	3,244	49	3,964	270	652	2,611	2,600	13	10	68	73	110.31	40.60	65	18
Bozrah,	984	593,497	7	6	7	151.43	372	249	211	10	328	2	68	167	150	3	0	3	6	43 67	37.33	2	1
Colchester,	3,383	1,457,490	13	14	18	174.44	700	567	493	45	700	1	152	444	372	7	2	11	16	51.89	30.16	9	5
East Lyme,	1,506	560,521	9	9	9	143.89	402	309	281	18	385	29	13	224	183	6	0	3	9	38.67	25.28	1	1
Franklin,	731	376,585	8	7	7	157.14	176	160	111	20	196	6	3	120	80	4	0	3	7	33.75	24.75	1	5
Griswold,	2,575	1,291,826	14	13	17	146.76	658	481	356	35	610	0	83	365	257	12	2	5	14	44.50	26.49	8	7
Groton,	5,124	2,061,553	10	10	18	188.89	1,196	904	829	11	1,123	29	59	679	572	11	6	9	12	54.29	33.36	13	6
Lebanon,	2,211	1,194,092	16	16	16	143.75	406	367	273	33	449	1	6	273	208	7	1	9	14	36.29	24.77	4	3
Ledyard,	1,392	531,216	14	14	14	143.05	330	314	228	34	367	7	8	249	166	8	0	6	13	33.41	19.78	1	5
Lisbon,	502	302,012	4	4	4	155.67	74	55	49	5	77	0	2	44	40	2	0	1	3	36.00	29.00	0	2
Lyme,	1,181	329,543	7	7	7	157.29	284	224	171	8	262	13	40	175	117	3	0	4	7	29.58	24.43	3	8
Montville,	2,495	1,153,575	12	12	14	156.07	531	466	392	23	563	0	30	358	292	5	1	9	13	46.17	33.23	8	4
No Stonington,	1,759	778,003	15	15	15	139.67	420	412	297	40	474	0	8	297	213	14	2	1	13	33.70	20.57	5	8
Old Lyme,	1,362	493,346	8	8	8	176.34	344	283	225	17	333	28	0	186	122	7	0	1	8	34.21	21.11	1	6
Preston,	2,161	892,561	12	12	15	147.00	628	565	475	21	637	3	9	407	346	8	4	8	12	44.68	26.40	9	3
Salem,	717	328,542	8	8	8	146.88	169	155	110	18	182	0	10	107	78	0	0	8	8	------	27.22	7	5
Sprague,	3,463	1,317,017	5	4	8	176.00	1,079	326	309	20	433	350	312	240	224	3	2	5	6	63.64	33.70	6	0
Stonington,	6,313	6,219,544	17	20	30	181.40	1,604	1,244	1,103	80	1,556	83	79	951	835	9	6	22	25	77.13	36.74	18	7
Waterford	2,482	1,191,874	11	11	12	154.58	618	477	386	36	575	32	58	345	248	5	0	7	12	47.80	33.49	6	5
20 TOWNS.	66,570	$43,295,043	203	219	328	174.23	16,847	12,370	11,080	583	15,110	894	1,768	9,600	8,429	131	40	224	312	$58.94	$33.08	212	101

TOWNS.	25	26	27	28	29	30	31	32	33	34	35	36	37
	RECEIPTS.								EXPENSES.				
	School Fund, etc.	Town Deposit.	Local Funds.	Town Tax.	District Tax.	Volunt'y Contributions.	Other Sources.	Total.	Teachers' Wages.	Fuel, etc.	Repairs.	Other Objects.	Total.
New London,	$5,130.00	709.23	2,896.37	18,000.00			100.00	26,835.60	19,020.17	3,634.55	2,384.76	1,596.12	*26,835.60
Norwich Town,	795.00	52.83		1,303.39	928.33		51.55	3,131.10	2,600.00	696.66	458.02	88.47	*3,867.15
" Central,	3,702.50	246.03		5,282.68	21,065.84		65.00	30,362.05	19,314.39	3,963.92	1,381.59		*24 809.90
" W. Chelsea,	2,300.00	152.84		3,175.22	5,891.30			11,519.36	6,249.60	788.55	477.89	2.360.75	*9,926.79
" other Dist's.	5,212 50	346.38		6,210.63	7,256.42	10.00	296.74	19,332.67	13.684.94	2,770.16	926.93	2,786.64	*20,218.67
" complete,	12.010.00	798.08		15,971.92	35,141.89	10.00	413.29	64,345.18	41,848.93	8,219.29	3,244.43	5,235.86	*58,822.51
Bozrah,	930.00	166.31	9.00	841.01	704.35			2,650.67	1,762.80	147 52	3.68	65.00	*2,683.35
Colchester,	1,750.00	234.50	350.00	3,116.81	190.85	29.50	880.43	6.552.09	5,500.19	334.39	197.85	148.25	6,180.68
East Lyme,	1,005.00	207.08	152.25	680.82	36.56		128.34	2,210.05	1,878.34	147.78	7.11	64.50	2,097.73
Franklin,	440.00	127.47	247.08	693.70		48.75	3.74	1,560.74	1.441.49	99.58	12.67	66 87	1,620.61
Griswold,	1,645.00	340.86	30.00	3.081.66	1,241.82			6,339.34	3,998.01	671.95	6,241.82	403.50	11,315.28
Groton,	2,990.00	410.36		5,224.57	4,319.94			12,944.87	7,773.10	694.28	52.60	505.76	9,025.74
Lebanon,	1,015.00	398.20	115.12	2,262.43	37.30	2.82		3,830.87	3,335.78	292.76	15.50	170.03	3,814.07
Ledyard,	825.00	360.48	86.81	1,299.24	157.43	59.81		2,788.77	2,454.25	181.59	36.00	90.50	2,762.34
Lisbon,	185.00	83.15	22.85	604.17				895.17	810.38	60.79		24.00	895.17
Lyme,	710.00	253.18		389.71	65.00	80.00		1,497.89	1,352.03	102.53		43.78	1,498.34
Montville,	1,327.50	303.88		2,760.12	565.04	20.00	56 06	5,032.60	4,526.86	325.54	9.80	170.40	5,032.60
No. Stonington,	1,050 00	427.71	50.80	1,818 85	300.00	43.73		3,691.09	3,017.52	227.79	330.28	115.50	3,691.09
Old Lyme,	860.00	221.00		873.00		10.00		1,964.00	1,791.00	125.00		48.00	1,964.00
Preston,	1,570.00	347.87	71.99	2,329.29	2,078.00			6,397.15	4,268.43	378.65	1,190.00	420.04	6.257.12
Salem,	422.50	172.41		593.25	206.52	119.03		1,513.71	1,261.92	67.19	265.67	59.92	*2,362.70
Sprague,	2,697.50	154.05	12.18	444.26		18.28	10.00	3,336.27	2,787.21	577.53		84.00	*3,472.02
Stonington,	4,010.00	524.10		10,666.08	557.00		50.00	15,807.18	13,606.96	1,054.72	1,055 15	528.50	*16,275.33
Waterford,	1,545.00	365.00	18.00	1,681.00		10.60	10.00	3.629.60	3,231.96	319.95		130.00	*3,702.51
	$42,117.50	6,604.92	4,062.45	73,331.89	45,601.70	452.52	1,651.86	173,822.84	125,667.33	17,663.38	15,047.32	9,970.53	*170,308.79

☞ For explanations, see pages 127–129. * Including money for new school houses, and for Libraries and Apparatus, for which see pages 148–149.

FAIRFIELD COUNTY.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
TOWNS.	Population. 1870.	Grand List. 1875.	No. of Districts.	No. of Schools.	Departments.	Av. Length.	SCHOLARS.									TEACHERS.						Continuously Employed.	Beginners.
							Enum. Jan. '76.	Registered.			Diff'nt Schol. Reg.	Private School.	In no School.	Av. Attend.		Male.		Female.		Wages, Month.			
								W.	S.	Over 16.				W.	S.	W.	S.	W.	S.	Male.	Fem.		
Bridgeport,	*21,735	$12,648,317	11	13	63	205.00	5,590	4,262	4,116	81	4,908	365	400	3,097	2,984	13	13	70	70	$113.23	45.11	75	7
Danbury,	8,753	5,409,409	12	12	39	196.54	2,355	1,801	1,743	75	2,122	89	258	1,442	1,377	5	3	36	38	86.25	42.22	31	5
Bethel,	2,311	901,402	6	6	10	200.00	563	499	496	10	582	4	0	358	354	2	2	8	8	90.00	37.88	7	1
Brookfield,	1,193	651,276	8	8	8	175.00	236	201	182	10	254	17	6	137	108	5	2	3	6	31.71	29.44	1	2
Darien,	1,808	1,734,248	5	5	7	200.00	414	317	283	16	364	33	35	214	173	4	4	3	3	56.25	35.00	7	0
Easton,	1,288	502,706	8	8	8	185.25	206	197	173	10	226	5	4	123	99	6	4	2	4	26 68	24.41	3	4
Fairfield,	*3,745	2,681,220	14	14	18	196.11	977	734	683	25	847	89	73	464	380	8	4	11	15	63.33	38.19	15	2
Greenwich,	7,644	3,666,675	19	19	25	200.00	1,929	1,312	1,057	39	1,491	186	291	837	716	6	5	20	20	68.91	45.48	22	3
Huntington,	1,527	1,056,172	12	12	14	185.71	492	386	384	3	481	8	17	285	244	3	2	11	12	46.00	29.84	14	1
Monroe,	1,226	542,942	7	7	7	188.29	256	214	174	16	256	6	11	143	104	4	2	3	5	29.78	28.07	2	2
New Canaan,	2,497	1,313,400	11	11	14	197.86	589	486	475	35	549	47	39	294	261	2	2	12	12	58.00	29.52	13	3
New Fairfield,	870	446,008	7	7	7	181.14	187	166	153	9	216	0	0	105	84	4	0	3	7	34.00	26.35	4	8
Newtown,	3,681	1,863,496	21	21	21	194.00	1,113	906	788	35	1,043	80	27	615	455	11	6	10	15	39.44	25.14	10	6
Norwalk,	12,119	6,788,696	11	11	41	202.80	3,254	2,390	2,182	31	2,885	93	320	1,762	1,661	8	8	40	39	110.63	45.06	46	2
Reading,	1,624	924,853	9	9	9	185.67	403	271	242	12	320	10	12	177	146	6	1	3	8	35.57	30.64	4	0
Ridgefield,	1,919	1,238,323	14	14	14	157.21	448	409	322	9	454	20	14	275	226	5	2	9	12	36.00	32.19	7	2
Sherman,	846	356,290	6	6	6	158.67	149	154	103	27	182	2	0	93	52	5	0	1	6	35.00	22.43	1	2
Stamford,	9,714	8,072,051	1	17	31	194.82	2,457	1,452	1,184	62	1,825	300	400	1,053	864	8	8	24	24	79.38	39.73	24	8
Stratford,	3,032	1,841,867	9	9	15	197.33	831	678	606	4	791	68	36	471	415	3	4	12	11	81.86	30.61	14	1
Trumbull,	1,335	651,478	6	6	6	194 00	278	192	191	10	228	29	34	121	113	3	1	3	5	40 75	32.58	2	1
Weston,	1,054	506,061	6	6	6	183.33	229	156	137	8	192	15	28	91	78	2	2	4	4	29.48	26.75	2	1
Westport,	3,361	2,237,592	10	10	10	198.70	771	506	387	30	603	84	114	334	235	9	6	1	4	55.98	32.00	10	2
Wilton,	1,994	728,999	10	10	10	183.66	467	359	292	6	408	25	37	240	189	6	5	4	4	30.18	29.68	6	0
23 TOWNS.	95,276	$56,763,481	223	241	389	194.41	24,194	18,048	16,353	563	21,227	1,575	2,156	12,731	11,318	128	86	293	332	$56.33	$38.82	320	63

* In 1870, a part of Fairfield, having a population of about 1,900, was annexed to Bridgeport. This transfer is accordingly made in the figures given above.

TOWNS.	25	26	27	28	29	30	31	32	33	34	35	36	37
	RECEIPTS.								EXPENSES.				
	School Fund, etc.	Town Deposit.	Local Funds.	Town Tax.	District Tax.	Volunt'y Contributions.	Other Sources.	Total.	Teachers' Wages.	Fuel, etc.	Repairs.	Other Objects.	Total.
Bridgeport,	$13,975.00	431.48	-------	34,796.23	11,661.65	27.50	8,803.44	69.695.30	48,339.68	5,216.83	3,744.53	3,976.13	*61,329.67
Danbury,	5,887.50	526.00	187.00	15,008.27	1,400.00	57.15	2,486.88	25,552.80	18,940.26	2,532.51	2,471.52	3,273.60	*30,419.99
Bethel,	1,407.50	185.16	12.54	3,642.51	3,334.60	10.00	110.00	8,702.31	4,702.14	445.33	274.38	374.89	*5,816.74
Brookfield,	590.00	258.48	-------	1,463.60	216.00	--------	--------	2,528.08	2,013.04	263.27	216.00	50.00	2,542.31
Darien,	1,035.00	212.94	-------	1,712.70	--------	--------	25.00	2,985.64	2,887.93	320.50	--------	82.00	*3,307.78
Easton,	515.00	139.38	140.00	1,607.94	--------	--------	46.02	2,448.34	2,170.52	147.96	37.00	58.50	2,413.98
Fairfield,	2,442.50	493.05	353.06	6,707.99	3,623.35	--------	1,516.45	15,136.40	8,321.19	1,331.46	679.95	274.00	*15,146.40
Greenwich,	4,822.50	683.21	63.70	8,666.25	679.39	141.75	107.91	15,164.71	13,020.25	1,012.48	633.99	477.99	*15,164.71
Huntington,	1,230.00	211.26	-------	2,909.88	446.00	54.00	20.00	4,871.14	4,263.19	388.83	--------	150.00	*4,850.99
Monroe,	640.00	280.30	42.00	1,054.60	315.23	--------	18.05	2,350.18	1,847.60	133.70	256.53	106.30	2,344.13
New Canaan,	1,472.50	282.00	23.16	3,338.84	600.35	31.00	175.55	5,923.40	4,724.11	481.14	66.47	316.96	*6,033.68
New Fairfield,	467.50	168.00	-------	1,202.50	46.33	15.00	--------	1,899.33	1,704.46	114.30	10.43	90.54	1,919.73
Newtown,	2,782.50	865.05	108.00	3,508.95	--------	--------	--------	7,264.50	6,639.15	469.85	--------	155.50	7,264.50
Norwalk,	8,135.00	472.62	256 00	15,197.74	5,709.47	110.00	287.00	30,167.83	26,140.15	2,316.73	1,455.92	6,782.20	*36,959.00
Reading,	1,007.50	259.81	24.52	1,981.81	270.00	25.00	6.50	3,575.14	2,934.09	220.80	297.75	122.80	3,575.44
Ridgefield,	1,120.00	360.00	128.50	2,110.23	2,090.42	--------	16.00	5,825.15	3,624.11	288.12	36.80	89.00	*6,120.75
Sherman,	372.50	144.00	-------	910.44	--------	--------	--------	1.426.94	1,286.50	96.94	--------	43.50	1,426.94
Stamford,	6,142.50	522.31	149.31	14,538.22	--------	-------	--------	21,352.34	16,612.72	2,341.54	341.36	2,056.72	21,352.34
Stratford,	2,077.50	279.56	168.00	3,563.64	1,641.31	15.00	73.00	7,818.01	6,226.00	624.00	39.80	1,910.50	*8,880.30
Trumbull,	695.00	192.00	43.00	1,365.34	210.04	21.50	-------	2,516.88	2,083.20	156.59	46.50	80 39	2,366.68
Weston,	572.50	210.00	-------	903.50	--------	150.38	4.16	1,840.54	1,508.00	102.60	163.31	36.00	1,809.91
Westport,	1,927.50	336.00	-------	3,362.37	--------	--------	--------	5,625.87	4,879.79	376.10	163 63	199.00	5,618.52
Wilton,	1,167.50	323.15	-------	1,029.43	800.00	32.00	9.00	3,361.08	2,258.50	234.44	5.50	81.65	*3,349.99
	$60,485.00	7,835.76	1,698.79	130,572.98	33,044.14	690.28	13,704.96	248,031.91	187,126.58	19,616.02	10,941.37	20,788.17	*250,014.48

☞ For explanations, see pages 127-129. * Including money for new school houses, and for Libraries and Apparatus, for which see pages 148 and 149.

WINDHAM COUNTY.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
TOWNS.	Population, 1870.	Grand List, 1875.	No. of Districts.	No. of Schools.	Departments.	Av. Length.	SCHOLARS.									TEACHERS.						Continuously Employed	Beginners.
							Enum. Jan. '76.	Registered.			Diff'nt Schol. Reg.	Private School.	In no School.	Av. Attend.		Male.		Female.		Wages, Month.			
								W.	S.	Over 16.				W.	S.	W.	S.	W.	S.	Male.	Fem.		
Brooklyn,	2,354	$1,432,332	9	9	13	166.86	513	316	274	41	388	74	100	258	212	7	3	6	9	$63.78	$34.01	7	0
Ashford,	1,241	354,690	10	10	10	134.60	250	219	174	28	266	11	2	174	130	8	1	2	9	33.58	26.26	2	4
Canterbury,	1,543	603,250	11	11	11	150.00	326	313	228	19	349	3	8	246	160	6	2	5	9	36.74	27.53	3	3
Chaplin,	704	266,390	5	5	5	136.00	146	130	102	16	162	0	8	92	69	3	2	2	3	31.53	26.80	3	1
Eastford,	984	250,616	8	8	8	135.00	211	190	165	13	226	0	21	140	113	4	1	4	7	28.79	22.99	3	3
Hampton,	891	436,696	7	7	7	148.29	197	202	137	21	232	1	1	158	86	5	0	2	7	35.00	30.00	1	1
Killingly,	5,712	2,153,606	15	14	22	185.00	1,498	982	849	84	1,277	42	264	774	641	11	10	14	13	61.88	39.49	20	2
Plainfield,	4,521	2,083,120	13	13	16	169.69	1,101	678	583	31	857	40	242	507	421	9	2	7	14	49.37	31.74	6	4
Pomfret,	1.488	796,936	8	8	8	144.38	264	217	185	14	271	2	5	174	140	2	0	6	8	40.00	27.39	4	0
Putnam,	4,192	2,084,779	6	7	13	178.46	1,417	464	431	60	586	450	443	382	346	4	3	10	11	103.97	42.16	6	2
Scotland,	643	401,529	5	5	5	147.00	98	97	64	12	112	1	1	73	45	2	0	3	5	35.00	24.97	1	1
Sterling,	1,022	371.869	9	9	9	141.11	264	228	166	12	267	0	11	185	117	4	2	5	7	31.56	27.36	2	0
Thompson,	3,804	1,935,200	13	13	16	151.88	1,185	627	572	38	828	135	279	474	435	6	2	11	15	41.63	38.62	12	6
Voluntown,	1,052	225,177	9	8	9	136.81	271	214	165	25	275	26	28	145	94	7	1	2	7	33.40	20.00	2	5
Windham,	5,412	3,426,425	11	11	25	181.80	1,472	1,082	1,042	61	1,590	20	0	871	811	9	7	19	22	72.86	35.86	24	8
Woodstock,	2,955	1,115,282	17	17	17	143.93	596	527	385	40	621	19	21	413	281	12	3	5	13	39.51	28.81	8	5
16 TOWNS.	38,518	$17,937,897	156	155	194	157.74	9,809	6,486	5,522	515	8,307	824	1,434	5,066	4,101	99	39	103	159	$50.57	$32.34	104	45

	25	26	27	28	29	30	31	32	33	34	35	36	37
TOWNS.	RECEIPTS.								EXPENSES.				
	School Fund, etc.	Town Deposit.	Local Funds.	Town Tax.	District Tax.	Volunt'y Contribu-tions.	Other Sources.	Total.	Teachers' Wages.	Fuel, etc.	Repairs.	Other Objects.	Total.
Brooklyn,	$1,282.50	225.39	30.72	3,521.15	739.32		84.25	5,883.33	4,538.39	397.29	332.17	861.43	6,129.28
Ashford,	625.00	179.75		1,476.39		16.50		2,297.64	2,101.39	106.25	8.00	81.00	2,296.64
Canterbury,	815.00	123.00	13.36	1,987.72		5.00	25 90	2,969.98	2,618.02	212.00	11.79	48 00	*2,899.81
Chaplin,	365.00	124.36		624.77	50.00	5.00	35.00	1,204.13	1,001.92	82.21	80.00	30.00	*1,204.13
Eastford,	527.50	164.17		727.00	41.50			1,460.17	1,322.21	88.96	1.00	48.00	1,460.17
Hampton,	492.50	170.00	22.00	924.89	90.00	2.50		1,701.89	1,471.02	111.72	2.50	48.00	1,633.24
Killingly,	3,745.00	461.82		8,191.05	5,925.29	6.80	336.75	18,666.71	10,913.60	1,296.58	802.25	2,563.13	*22,008.26
Plainfield,	2,752.50	371.05		2,981.61			12.63	6,117.79	5,334.58	503.48		274.38	6,112.44
Pomfret,	660.00	272.50	32.61	1,016.80	375.00	42.61	10.00	2,409.52	1,739.35	196.88	392.00	66.00	*2,414.23
Putnam,	3,542.50	259.04	13.98	5,190.54	2,140.36	21.90	20.00	11,188.32	7,307.22	1,530.04	828.79	398.80	*10,101.75
Scotland,	245.00	66.39	34.35	803.47				1,149.21	1,029.61	89.60		30.00	1,149.21
Sterling,	660 00	191.00		1,158.04		16.00	5.00	2,030.04	1,839.57	130.55		51.00	*2,031.12
Thompson,	2,962.50	165.00		2,654.75	241.54	15.00	34.70	6,073.49	5,168.57	459.01	121.44	290.50	*6,069.52
Voluntown,	677.50	197.57		738.22		8.00		1,621.29	1,472.50	97.79		51.00	1,621.29
Windham,	3,680.00	422.84	72.29	6,450.96	6,187.67	10.00	2,165.45	18,989.21	11,642.52	1,267.73	2,876.60	3,047.17	*18,910.57
Woodstock,	1,490.00	484.00	55.80	2,201.15	224.27			4,455.22	3,735.31	361.18	224.27	137.00	4,457.76
	$24,522.50	3,877.88	275.11	40,648.51	16,014.95	149.31	2,729.68	88,217.94	63,235.78	6,931.27	5,680.81	8,025.41	*90,499.42

☞ For explanations, see pages 127–129. *Including money for new school houses, and for Libraries and Apparatus, for which see pages 148 and 149.

LITCHFIELD COUNTY.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
							SCHOLARS.									TEACHERS.							
TOWNS.	Population, 1870.	Grand List, 1875.	No. of Districts.	No. of Schools.	Departments.	Av. Length.	Enum. Jan. '76.	Registered.			Diff'nt Schol. Reg.	Private School.	In no School.	Av. Attend.		Male.		Female.		Wages, Month.		Continuously Employed.	Beginners.
								W.	S.	Over 16.				W.	S.	W.	S.	W.	S.	Male.	Fem.		
Litchfield,	3,113	$1,939,593	20	20	20	154.50	703	577	440	34	664	62	24	405	279	8	0	12	20	$34.44	$28.04	3	10
Barkhamsted,	1,439	458,425	11	11	12	134.55	275	235	203	24	289	4	9	173	128	4	1	8	10	34.00	22.89	3	2
Bethlehem,	750	511,686	8	8	8	151.61	126	110	89	6	142	4	2	85	59	4	1	4	6	22.20	25.05	3	3
Bridgewater,	877	483,984	5	5	6	197.50	206	185	143	11	215	2	8	124	93	3	0	3	9	41.67	24.67	1	1
Canaan,	1,257	625,457	10	10	10	164.00	272	200	169	20	278	22	1	140	115	3	0	7	10	26.67	29.29	9	2
Colebrook,	1,141	533,958	10	10	11	144.55	311	258	232	17	334	0	0	196	171	2	0	9	11	41.75	27.03	4	3
Cornwall,	1,772	729,640	17	15	15	163.40	427	335	256	23	411	14	25	257	187	6	1	9	13	36.64	25.02	11	4
Goshen,	1,223	823,122	12	11	11	154.09	272	208	207	14	284	9	9	149	153	4	0	7	10	34.00	23.74	4	5
Harwinton,	1,044	501,895	12	12	12	141.25	222	201	168	26	248	0	2	160	123	4	1	8	11	29.66	24.86	0	3
Kent,	1,744	521,667	13	13	13	169.23	410	310	291	22	386	29	12	213	172	5	2	8	11	30.57	23.88	6	1
Morris,	701	385,732	6	5	5	159.00	155	132	100	10	161	1	6	100	74	3	0	2	5	36.00	26.29	1	3
New Hartford	3,078	1,157,453	10	10	14	164.29	787	512	427	19	685	0	130	362	296	5	1	9	13	46.67	32.77	8	5
New Milford,	3,586	2,110,072	18	18	20	198.16	813	622	531	31	702	75	68	413	323	9	1	10	18	41.30	26.64	2	4
Norfolk,	1,641	735,021	11	11	12	140.00	353	282	270	12	345	0	17	209	190	3	1	9	11	31.93	28.95	6	3
North Canaan,	1,695	733,932	5	5	7	166.43	435	339	263	21	383	31	43	227	170	5	0	2	7	42.00	29.00	4	0
Plymouth,	*4,149	*2,342,652	9	9	13	173.46	536	440	406	20	508	11	39	350	311	4	2	9	11	78.00	36.86	8	4
Roxbury,	919	512,344	7	7	7	152.43	174	170	140	20	206	0	0	122	75	4	0	3	7	31.79	20.84	0	3
Salisbury,	3,303	2,064,331	14	14	17	178.53	874	734	659	21	801	58	43	476	407	2	2	15	15	40.00	31.80	10	5
Sharon,	2,441	1,449,974	18	18	18	185.83	597	457	390	26	581	34	28	282	226	8	2	10	16	31.77	28.42	4	1
Thomaston,	*	*	1	4	10	178.00	524	359	340	23	496	15	34	287	285	3	2	6	7	86.80	37.85	6	0
Torrington,	2,893	1,416,129	10	10	15	173.33	774	614	557	29	730	8	67	451	397	2	1	14	15	103.33	35.45	9	5
Warren,	673	268,218	7	6	6	153.00	160	138	119	17	173	2	7	91	73	4	0	2	6	26.00	23.36	0	1
Washington,	1,563	950,874	12	12	12	167.08	319	264	228	4	318	26	3	179	152	6	0	6	12	30.50	25.00	2	0
Watertown,	1,698	1,647,564	9	9	10	162.00	348	294	260	22	364	10	18	218	179	5	0	5	10	42.50	31.65	1	2
Winchester,	4,096	3,073,394	8	8	15	187.67	967	612	648	14	829	79	80	442	484	6	2	11	15	85.50	43.12	11	1
Woodbury,	1,931	1,118,522	14	14	14	165.36	398	335	289	15	425	17	7	252	199	5	0	9	14	35.20	24.88	7	5
26 TOWNS.	48,727	$27,095,639	277	275	313	167.80	11,438	8,923	7,825	501	10,958	513	682	6,363	5,321	117	20	197	293	$43.16	$28.89	123	76

* Thomaston is included in Plymouth.

	25	26	27	28	29	30	31	32	33	34	35	36	37
	RECEIPTS.								EXPENSES.				
TOWNS.	School Fund, etc.	Town Deposit.	Local Funds.	Town Tax.	District Tax.	Volunt'y Contributions.	Other Sources.	Total.	Teachers' Wages.	Fuel, etc.	Repairs.	Other Objects.	Total.
Litchfield,	$1,757.50	527.90	96.00	2,998.49	26.00	36.67	114.87	5,557.43	4,892.22	390.20	96.90	266.25	5,645.57
Barkhamsted,	687.50	280.28		1,306.05	61.73			2,335.56	2,076.09	169.24	40.23	50.00	2,335.56
Bethlehem,	315.00	146.86	13.68	1,106.68	300.00	15 00		1,897.22	1,411.61	133.66	300.00	48.00	1,893.27
Bridgewater,	515.00	152.87	11.70	966.59		24.09	20.00	1,690.25	1,490.14	114.96	5.06	36.00	*1,690.25
Canaan,	680.00	180.01		1,836.63	475.00	51.94		3,223.58	2,393.50	240.94		114.14	*3,223.58
Colebrook,	777.50	235.00	102.00	1,380.65	1,523.40	13.65	63.18	4,095.38	2,239.65	263.73	576.00	66.00	*4,095.38
Cornwall,	1,067.50	272.96	41.62	1,754.41		591.28	8.00	3,735.77	3,269.33	268.00	77.52	107.92	*3,733.77
Goshen,	680.00	267.18	117.23	1,091.33		395.75	36.54	2,588.03	2,214.31	201.05	46.49	88.00	2,549.85
Harwinton,	555.00	280.84		1,560.88		14.00		2,410.72	2,150.48	196.24		64.00	2,410.72
Kent,	1,025.00	308.35		1,474.54	153.15	163.17	1.75	3,125.96	2,790.00	192 96	38.00	105.00	3,125.96
Morris,	387.50	70.00		664.13		34.60	5.00	1,161.23	967.76	97.98	24.07	82.00	*1,184.41
New Hartford,	1,967.50	305.16		2,283.89	313.85		255.66	5,126.06	3,946.20	465.17	326.82	148.60	4,886.79
New Milford,	2,032.50	465.30	192.00	3,991.23	2,554.56	134.72	77.40	9,447.71	5,983.92	601.38	12.05	134.50	*18,282.75
Norfolk,	882.50	203.49	94.79	1,683.22		27.00	20.00	2,911.00	2.548.70	228.45	1.35	92.50	*2,911.00
North Canaan,	1,087.50	174.59		887.91		97.00	5.00	2,252.00	2,020.00	172.00		50.00	*2,252.00
Plymouth,	1,340.00	185.54		4,148.71	563.62		58.00	6,295.87	5,132.31	445.25	543.41	120.00	*6,295.87
Roxbury,	435.00	172.80		803.23	447.65	45.00	10.00	1,913.68	1,280.71	117.82	453.15	42.00	*1,912.68
Salisbury,	2,185.00	224.39	55.85	3,265.10				5,730.34	4,991.01	553.33		186.00	5,730.34
Sharon,	1,492.50	470.12	59.73	3,579.87				5,602.22	5,038.68	422.54		141.00	5,602.22
Thomaston,	1,310.00	285.60		3,328.34			85.25	5,009.19	4,369.97	187.46	152.24	299.52	5,009.19
Torrington,	1,935.00	254.42		4,559.68		34.00	193.10	6.976.20	5,693.42	1,017.81	25.75	112.00	*6,902.98
Warren,	400.00	151.94		693.37	630.00	67.00		1,942.31	1,148.50	112.41	47.40	34.00	*2,142.31
Washington,	797.50	249.79		1,733.90	900.00	67.40		3,748.59	2,537.16	213.93	11.50	86.00	*3,748.59
Watertown,	870.00	300.67		2,061.11	600.00			3,831.78	2,861.41	241.37	594.31	163.00	3,860.09
Winchester,	2,417.50	219.05		7,414.26	1,000.00	56.07	600.39	11,707.27	8,956.00	956.59	860.67	836.70	*11,707.27
Woodbury,	995.00	367.65	10.24	2,023.70				3,396.59	2,969.82	331.77		95.00	3,396.59
	$28,595.00	6,752.76	794.84	58,597.90	9,548.96	1,868.34	1,554.14	107,711.94	85,372.90	8,336.24	4,232.92	3,568.13	*116,529.99

☞ For explanations, see pages 127–129. *Including money for new school houses, and for Libraries and Apparatus, for which see pages 148 and 149.

MIDDLESEX COUNTY.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
TOWNS.	Population, 1870.	Grand List, 1875.	No. of Districts.	No. of Schools.	Departments.	Av. Length.	SCHOLARS.									TEACHERS.						Continuously Employed.	Beginners.
							Enum. Jan. '76.	Registered.			Diff'nt. Schol. Reg.	Private School.	In no School.	Av. Attend.		Male.		Female.		Wages, Month.			
								W.	S.	Over 16.				W.	S.	W.	S.	W.	S.	Male.	Fem.		
Middletown,	4,203	----------	18	18	22	186.82	1,087	801	763	50	1,005	63	69	531	480	4	0	18	22	$52.65	$34.59	12	4
" City,	6,923	----------	1	3	22	206.00	1,326	927	741	72	963	350	110	653	620	5	6	19	18	108.00	46.00	24	0
" complete,	11,126	$9,495,905	19	21	44	196.41	2,413	1,728	1,504	122	1,968	413	179	1,184	1,100	9	6	37	40	93.24	40.07	36	4
Haddam,	2,071	775,333	14	13	14	158.93	491	358	297	3	419	31	39	255	198	4	0	10	14	36.75	29.08	9	4
Chatham,	2,771	657,168	11	11	13	165.38	519	385	367	24	465	11	47	281	244	3	1	10	12	69.25	27.86	7	7
Chester,	1,094	445,756	4	4	5	180.00	236	203	186	16	235	7	11	147	125	2	0	3	5	43.50	37.00	4	2
Clinton,	1,404	638,544	1	4	10	194.10	308	307	297	50	369	0	13	256	243	2	2	9	9	117.50	37.22	9	0
Cromwell,	1,856	767,976	5	6	9	180.00	487	400	308	14	470	9	22	304	198	3	1	6	6	67.50	35.96	8	2
Durham,	1,086	481,725	6	6	6	165.83	209	159	135	8	175	20	27	123	102	1	0	5	6	36.50	26.87	4	1
East Haddam,	2,951	1,297,115	17	17	19	160.53	675	524	459	16	638	30	25	408	397	9	2	10	17	42.05	30.53	12	2
Essex,	1,669	1,217,846	1	6	6	190.00	344	236	212	4	301	26	21	167	146	2	2	4	4	40.00	37.00	4	1
Killingworth,	856	245,681	1	8	8	148.93	152	140	103	12	158	0	9	112	79	4	0	3	8	34.92	24.59	3	3
Middlefield,	1,053	568,387	4	4	4	173.75	194	154	129	5	177	11	13	110	94	0	0	4	4	------	41.75	2	1
Old Saybrook,	1,215	677,156	1	4	4	170.00	322	163	175	3	219	63	43	119	110	4	0	0	4	40.50	32.00	0	0
Portland,	4,693	2,127,821	7	6	15	197.67	992	772	727	5	822	50	133	574	506	4	1	12	15	86.00	41.59	13	0
Saybrook,	1,267	752,324	1	5	5	200.00	241	196	185	9	235	11	16	164	140	0	0	5	5	------	40.00	3	2
Westbrook,	987	525,041	7	7	7	135.71	162	155	115	7	167	8	4	107	83	3	0	4	7	38.33	26.63	0	2
15 TOWNS.	36,099	$20,673,778	99	122	169	178.37	7,745	5,880	5,199	298	6,818	690	602	4,311	3,765	50	15	122	156	$63.93	$35.10	114	31

TOWNS.	25	26	27	28	29	30	31	32	33	34	35	36	37
	RECEIPTS.								EXPENSES.				
	School Fund, etc.	Town Deposit.	Local Funds.	Town Tax.	District Tax.	Volunt'y Contributions.	Other Sources.	Total.	Teachers' Wages.	Fuel, etc.	Repairs.	Other Objects.	Total.
Middletown,	$2,717.50	369.59	.....	4,126.07	423.78	160.64	1,244.13	9,041.71	7,356.17	605.20	77.99	723.75	*8,914.61
" City,	3,315.00	450.86	116.17	6,393.82	13,151.08	.....	1,601.71	25,028.64	14,252.62	1,567.95	367.08	6,762.97	*23,117.47
" complete.	6,032.50	820.45	116.17	10,519.89	13,574.86	160.64	2,845.84	34,070.35	21,608.79	2,173.15	445.07	7,486.72	*32,032.68
Haddam,	1,227.50	466.15	19.50	1,725.75	1,200.00	109.25	.....	4,748.15	3,435.89	362.24	26.11	100.00	*5,124.24
Chatham,	1,297.50	328.05	.....	2,519.90	.....	82.00	255.00	4,482.45	3,762.79	362.21	69.00	146.45	*4,382.45
Chester,	590.00	132.00	.....	1,207.39	422.76	.....	.....	2,352.15	1,728.50	186.20	304.17	123.73	2,342.60
Clinton,	770.00	208.57	63.96	1,849.34	.....	.....	114.00	3,005.87	2,770.75	175.12	.....	.....	*3,005.87
Cromwell,	1,217.50	125.46	.....	2,349.71	.....	10.00	10.00	3,712.67	3,234.25	299.01	67.91	91.50	*3,712.67
Durham,	522.50	111.88	67.06	915.24	.....	30.00	10.00	1,656.68	1,371.50	192.48	.....	72.70	*1,656.68
East Haddam,	1,687.50	477.55	28.00	2,865.37	584.39	39.00	5.00	5,686.81	5,109.17	418.66	179.23	310.29	*6,027.35
Essex,	860.00	110.33	64.08	1,618.90	.....	.....	25.00	2,678.31	2,139.44	191.84	107.93	185.50	*2,678.31
Killingworth,	380.00	158.53	11.65	1,141.22	.....	.....	.....	1,691.40	1,515.00	116.90	14.50	45.00	1,691.40
Middlefield,	485.00	90.49	49 50	1,083.45	.....	24.00	20.22	1,752.66	1,488.25	181.10	178.30	40.50	*1,927.15
Old Saybrook,	805.00	134.88	21.12	550.51	.....	5.00	5.00	1,521.51	1,251.80	112.29	109.42	38.00	*1,521.51
Portland,	2,480.00	319.00	30.00	5,950.35	7.12	40.00	43.00	8,869.47	7,624.00	986.07	37.14	294.90	*9,022.11
Saybrook,	602.50	127.60	141.28	1,706.34	.....	.....	.....	2,577.72	2,021.56	391.52	82.04	82.60	2,577.72
Westbrook,	405.00	86.50	13.39	1,039.32	.....	.....	.....	1,544.21	1,407.00	94.71	.....	42.50	1,544.21
	$19,362.50	3,697.44	625.71	37,042.68	15,789.13	499.89	3,333.06	80,350.41	60,468.69	6,243.50	1,620.82	9,060.39	*79,246.35

☞ For explanations, see pages 127–129. *Including money for new school houses, and for Libraries and Apparatus, for which see pages 148 and 149.

TOLLAND COUNTY.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
TOWNS.	Population, 1870.	Grand List, 1875.	No. of Districts.	No. of Schools.	Departments.	Av. Length.	SCHOLARS.									TEACHERS.						Continuously Employed.	Beginners.
							Enum. Jan. '76.	Registered.			Diff'nt Schol. Reg.	Private School.	In no School.	Av. Attend.		Male.		Fem.		Wages, Month.			
								W.	S.	Over 16.				W.	S.	W.	S.	W.	S.	Male.	Fem.		
Tolland,	1,216	$375,176	12	12	13	142.00	298	261	210	22	301	------	17	198	144	4	0	9	10	$33.25	$24.42	5	2
Andover,	461	251,143	4	4	4	136.25	87	81	52	12	100	------	11	63	40	1	0	3	4	34.29	24.63	1	1
Bolton,	576	219,794	5	4	4	158.75	117	107	92	13	128	------	14	78	66	3	1	1	3	35.17	30.00	1	4
Columbia,	891	306,334	7	7	7	142.86	205	171	131	18	206	6	22	132	90	5	0	2	7	35.25	21.74	0	3
Coventry,	2,057	790,807	10	10	12	157.61	471	355	304	39	453	25	56	263	215	9	1	2	11	45.00	29.92	4	6
Ellington,	1,452	745,686	9	9	9	141.11	283	225	187	11	279	------	9	187	153	1	0	8	9	34.00	35.41	6	2
Hebron,	1,279	501,233	11	10	10	139.60	275	237	201	17	278	14	17	191	157	7	0	3	10	35.79	24.96	3	4
Mansfield,	2,401	690,851	15	14	14	147.14	418	347	253	34	413	2	26	262	187	10	0	4	14	36.10	24.13	10	11
Somers,	1,247	642,693	10	9	10	153.50	256	228	185	4	261	------	5	165	130	1	0	9	10	30.00	30.95	7	3
Stafford,	3,405	1,245,503	18	17	21	140.95	911	522	478	17	713	114	125	413	394	8	0	13	21	29.55	29.13	13	8
Union,	627	194,697	6	6	6	129.02	138	111	89	9	131	2	19	92	75	4	0	3	5	28.00	28.70	2	4
Vernon,	5,446	2,514,082	8	9	25	180.00	1,644	1,124	1,165	42	1,443	35	205	920	913	5	3	21	23	114.46	37.53	23	0
Willington,	942	268,936	9	9	9	140.33	253	206	187	9	268	5	16	143	136	3	0	6	9	26.33	24.34	4	3
13 TOWNS.	22,000	$8,746,935	124	120	144	149.34	5,356	3,975	3,534	247	4,974	203	542	3,107	2,700	61	5	84	136	$44.27	$30.31	79	51

TOWNS.	25	26	27	28	29	30	31	32	33	34	35	36	37
	RECEIPTS.								EXPENSES.				
	School Fund, etc.	Town Deposit.	Local Funds.	Town Tax.	District Tax.	Volunt'y Contributions.	Other Sources.	Total.	Teachers' Wages.	Fuel, etc.	Repairs.	Other Objects.	Total.
Tolland,	$ 745.00	269.16	31.91	1,411.62	.....	15.00	17.34	2,490.03	2,157.98	223.71	.....	78.34	*2,490.03
Andover,	217.50	116.27	10.06	518.71	.....	.....	.....	862.54	750.82	81.54	.....	30.18	862.54
Bolton,	292.50	114.65	.....	622.48	.....	.....	41.63	1,071.26	967.44	62.58	71.00	25.00	*1,131.02
Columbia,	512.50	148.25	19.67	855.58	119.51	23.35	10.00	1,688.86	1,371.31	117.28	81.40	106.61	*1,700.15
Coventry,	1,177.50	515.32	56.48	2,084.80	2,437.38	11.20	10.00	6,292.68	3,308.03	336.76	13.75	864.14	*4,542.68
Ellington,	707.50	254.58	134.36	1,396.52	91.85	97.00	.....	2,681.81	2,328.91	221.15	.....	60.00	2,610.06
Hebron,	687.50	272.03	93.00	1,033.29	858.15	2.08	84.37	3,030.42	1,954.36	139.66	199.25	69.00	*3,030.42
Mansfield,	1,045.00	410.06	30.51	2,082.14	140.00	33.35	5.00	3,746.06	3,287.38	238.83	140.00	96.00	*3,772.21
Somers,	640.00	216.28	.....	1,734.95	.....	.....	.....	2,591.23	2,313.50	210.23	.....	67.50	2,591.23
Stafford,	2,277.50	264.42	97.26	2,366.08	1,401.26	.....	.....	6,406.52	4,412.67	458.52	122.93	264.53	5,258.65
Union,	345.00	109.62	.....	713.37	.....	10.10	10.00	1,188.09	1,038.30	87.69	1.00	41.00	*1,188.09
Vernon,	4,110.00	22.13	.....	10,053.45	3,982.56	.....	233.30	18,401.44	11,980.75	1,925.66	2,689.58	2,427.68	*19,191.06
Willington,	632.50	230.01	.....	851.98	.....	45.17	.....	1,759.66	1,519.99	112.30	38.35	89.02	1,759.66
	$13,390.00	2,942.78	473.25	25,724.97	9,030.71	237.25	411.64	52,210.60	37,391.44	4,215.91	3,357.26	4,219.00	*50,127.80

☞ For explanations, see pages 127–129. * Including money for new school houses, and for Libraries and Apparatus, for which see pages 148 and 149.

SUMMARY BY COUNTIES.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
							SCHOLARS.									TEACHERS.							
								Registered.						Av. Attend.		Male.		Female.		Wages, Month.			
COUNTIES.	Population, 1870.	Grand List, 1875.	No. of Districts.	No. of Schools.	Departments.	Av. Length.	Enum. Jan. '76.	W.	S.	Over 16.	Diff'nt Schol. Reg.	Private Schools.	In no School.	W.	S.	W.	S.	W.	S.	Male.	Fem.	Continuously Employed.	Beginners.
Hartford,	109,007	$84,995,927	241	261	468	181.29	28,178	20,438	18,968	973	24,345	2,172	2,770	15,742	14,103	103	65	396	432	$101.83	$40.25	392	85
New Haven,	121,257	98,982,751	170	235	494	187.73	31,622	22,803	21,351	774	27,367	2,945	2,343	17,449	16,884	78	51	470	497	109.25	43.36	436	87
New London,	66,570	43,295,043	203	219	328	174.23	16,847	12,370	11,080	583	15,110	894	1,768	9,600	8,429	131	40	224	312	58.94	33.08	212	101
Fairfield,	95,276	56,763,481	223	241	389	194.41	24,194	18,048	16,353	563	21,227	1,575	2,156	12,731	11,318	128	86	293	332	56.33	38.82	320	63
Windham,	38,518	17,937,897	156	155	194	157.74	9,809	6,486	5,522	515	8,307	824	1,434	5,066	4,101	99	39	103	159	50.57	32.34	104	45
Litchfield,	48,727	27,095,639	277	275	313	167.80	11,438	8,923	7,825	501	10,958	513	682	6,363	5,321	117	20	197	293	43.16	28.89	123	76
Middlesex,	36,099	20,673,778	99	122	169	178.37	7,745	5,880	5,199	298	6,818	690	602	4,311	3,765	50	15	122	156	63.93	35.10	114	31
Tolland,	22,000	8,746,935	124	120	144	149.34	5,356	3,975	3,534	247	4,974	203	542	3,107	2,700	61	5	84	136	44.27	30.31	79	51
TOTALS.	537,454	$358,491,451	1,493	1,628	2,499	178.13	135,189	98,923	89,832	4,454	119,106	9,816	12,297	74,369	66,621	767	321	1,889	2,317	$67.43	$37.16	1,780	539

	25	26	27	28	29	30	31	32	33	34	35	36	37
	RECEIPTS.								EXPENSES.				
COUNTIES.	School Fund. State Appropriat'n	Town Deposit.	Local Funds.	Town Tax.	District Tax.	Volunt'y Contribu-tions.	Other Sources.	Total.	Teachers' Wages.	Fuel, etc.	Repairs.	Other Objects.	Total.
Hartford,	$70,445.00	8,708.13	3,418.87	194,053.80	109,736.03	330.38	16,281.47	402,973.68	255,146.07	35,281.42	14,327.86	50,100.48	*379,371.62
New Haven,	79,055.00	7,245.33	1,213.52	151,195.25	161,069.03	371.14	7,096.47	407,245.74	270,881.26	35,056.15	13,651.73	32,748.03	*393,083.07
New London,	42,117.50	6,604.92	4,062.45	73,331.89	45,601.70	452.52	1,651.86	173,822.84	125,667.33	17,663.38	15,047.32	9,970.53	*170,308.79
Fairfield,	60,485.00	7,835.76	1,698.79	130,572.98	33,044.14	690.28	13,704.96	248,031.91	187,126.58	19,616.02	10,941.37	20,788.17	*250,014.48
Windham,	24,522.50	3,877.88	275.11	40,648.51	16,014.95	149.31	2,729.68	88,217.94	63,235.78	6,931.27	5,680.81	8,025.41	*90,499.42
Litchfield,	28,595.00	6,752.76	794.84	58,597.90	9,548.96	1,868.34	1,554.14	107,711.94	85,372.90	8,336.24	4,232.92	3,568.13	*116,529.99
Middlesex,	19,362.50	3,697.44	625.71	37,042.68	15,789.13	499.89	3,333.06	80,350.41	60,468.69	6,243.50	1,620.82	9,060.39	*79,246.35
Tolland,	13,390.00	2,942.78	473.25	25,724.97	9,030.71	237.25	411.64	52,210.60	37,391.44	4,215.91	3,357.26	4,219.00	*50.127.80
	$337,972.50	47,665.00	12,562.54	711,167.98	399,834.65	4,599.11	46,763.28	1,560,565.06	1,085,290.05	133,343.39	68,860.09	138,480.14	*1,529,181.52

☞ For explanations, see pages 127–129. * Including money for new school houses, and for Libraries and Apparatus, for which see pages 148 and 149.

Correction on page 131, column 37, total, instead of $378,371.62, read 379,371.62.

The amounts reported as expended for new school houses during the year ending August 31st, 1876, are given below. These amounts are included in the "TOTALS" of expenses on pages 131–147.

TOWNS.	No. of School Houses.	Amounts.
HARTFORD COUNTY.		
Hartford,	------	$8,000.00
Avon,	1	400.00
Granby,	1	526.03
New Britain,	1	11,000.00
Newington,	1	1,500.00
Suffield,	1	1,100.00
Total,	5	$22,526.03
NEW HAVEN COUNTY.		
New Haven,	------	$7,306.81
Derby,	------	1,900.00
Meriden,	1	3,692.10
Milford,	1	15,648.74
Naugatuck,	1	5,774.34
North Haven,	1	1,891.48
Woodbridge,	2	2,028.51
Total,	6	$38,241.98
NEW LONDON COUNTY.		
Bozrah,	1	$704.35
Salem,	1	708.00
Total,	2	$1,412.35
FAIRFIELD COUNTY.		
Danbury,	1	$3,112.25
Fairfield,	1	4,323.35
New Canaan,	--	425.00
Ridgefield,	2	2,074.62
Wilton,	1	769.90
Total,	5	$10,705.12
WINDHAM COUNTY.		
Killingly,	1	$6,400.00
LITCHFIELD COUNTY.		
Canaan,	1	$475.00
Colebrook,	1	930.00
New Milford,	1	11,500.00
Warren,	1	800.00
Washington,	1	900.00
Total,	5	$14,605.00
MIDDLESEX COUNTY.		
Haddam,	1	$1,200.00
TOLLAND COUNTY.		
Hebron,	1	$668.15
THE COUNTIES.		
Hartford,	5	$22,526.03
New Haven,	6	38,241.98
New London,	2	1,412.35
Fairfield,	5	10,705.12
Windham,	1	6,400.00
Litchfield,	5	14,605.00
Middlesex,	1	1,200.00
Tolland,	1	668.15
Total,	26	$95,758.63

A statement of the amounts expended for Libraries and Apparatus, in the year ending August 31st, 1876. These are included in the "TOTALS," of expenses on pages 131–147.

TOWNS.	Amounts.
Hartford,	$1,326.85
Berlin,	38.82
Bloomfield,	13.00
Bristol,	15.00
Canton,	50.00
East Granby,	35.01
East Hartford,	96.50
East Windsor,	21.67
Enfield,	25.79
Farmington,	66.95
Glastonbury,	91.37
Plainville,	7.60
Simsbury,	28.45
South Windsor,	29.75
Suffield,	26.00
Wethersfield,	20.00
Windsor,	73.00
Windsor Locks,	24.00
	$1,989.76

TOWNS.	Amounts.
New Haven,	$1,343.08
Cheshire,	10.50
Derby,	163.50
East Haven,	40.00
Guilford,	15.30
Madison,	16.67
Meriden,	229.89
Milford,	54.23
Naugatuck,	30.00
North Branford,	11.60
North Haven,	105.25
Orange,	87.70
Seymour,	40.00
Waterbury,	280.00
Woodbridge,	76.20
	$2,503.92

TOWNS.	Amounts.
New London,	$200.00
Norwich,	274.00
Sprague,	23.28
Stonington,	30.00
Waterford,	20.60
	$547.88

TOWNS.	Amounts.
Bridgeport,	$52.50
Danbury,	89.85
Bethel,	20.00
Darien,	17.35
Fairfield,	216.45
Greenwich,	20.00
Huntington,	48.97
New Canaan,	20.00
Norwalk,	264.00
Ridgefield,	8.10
Stamford,	80.00
	$837.22

TOWNS.	Amounts.
Canterbury,	$10.00
Chaplin,	10.00
Killingly,	32.70
Pomfret,	20.00
Putnam,	36.90
Sterling,	10.00
Thompson,	30.00
Windham,	76.55
	$226.15

TOWNS.	Amounts.
Bridgewater,	$44.09
Colebrook,	20.00
Cornwall,	11.00
Morris,	12.60
New Milford,	50.90
Norfolk,	40.00
North Canaan,	10.00
Plymouth,	54.90
Roxbury,	20.00
Torrington,	54.00
Winchester,	97.31
	$414.80

TOWNS.	Amounts.
Middletown,	$318.35
Chatham,	42.00
Clinton,	60.00
Cromwell,	20.00
Durham,	20.00
East Haddam,	10.00
Essex,	53.60
Middlefield,	39.00
Old Saybrook,	10.00
Portland,	80.00
	$652.95

TOWNS.	Amounts.
Tolland,	$30.00
Bolton,	5.00
Columbia,	23.55
Coventry,	20.00
Mansfield,	10.00
Union,	20.10
Vernon,	167.39
	$276.04

Hartford County,	$1,989.76
New Haven "	2,503.92
New London "	547.88
Fairfield "	837.22
Windham "	226.15
Litchfield "	414.80
Middlesex "	652.95
Tolland "	276.04
Total,	$7,448.72

TABLE I.

In which all the Towns in the State are arranged according to the amount of taxable property in each to every child between the ages of four and sixteen years.

The amount is given in dollars.

This Table is based upon the Grand List completed in 1875, and the Enumeration of children taken in January, 1876, and is designed to show the relative wealth of the several towns, as compared with their respective number of children of the usual school age. An examination of this Table will show, *approximately*, which towns are best able to provide liberally for their public schools, though this ability depends also, in part, upon the *density of population*, and the consequent number of schools required.

Where a district is formed of parts of two or more towns, the law now requires that all the children in such district shall be returned as from the town having jurisdiction over the district. For this reason the figures in this Table cannot be made to show *precisely* what they are designed to show.

The rank of towns in this Table may be compared with their rank in Table II.

1874-75.	1875-76.	TOWNS.	Am't for each child.	1874-75.	1875-76.	TOWNS.	Am't for each child.
1	1	Hartford,	$5055	62	34	Woodbury,	$2810
3	2	West Hartford,	4860	50	35	Brooklyn,	2792
2	3	Watertown,	4734	28	36	Ridgefield,	2764
4	4	New Haven,	4465	31	37	Brookfield,	2760
5	5	Darien,	4189	42	38	Litchfield,	2759
7	6	Scotland,	4097	44	39	Fairfield,	2744
13	7	Lisbon,	4081	37	40	Woodbridge,	2653
6	8	Bethlehem,	4061	45	41	Guilford,	2650
8	9	Middletown,	3935	34	42	Ellington,	2635
9	10	Stonington,	3878	43	43	Farmington,	2625
10	11	South Windsor,	3759	38	44	New Milford,	2595
12	12	Essex,	3540	49	45	Wallingford,	2541
21	13	New London,	3427	33	46	Somers,	2511
19	14	Stamford,	3285	47	47	Wolcott,	2508
16	15	Westbrook,	3241	51	48	Southbury,	2490
14	16	East Haven,	3227	66	49	Morris,	2489
11	17	Winchester,	3178	72	50	Cheshire,	2463
17	18	Norwich,	3141	†	51	Thomaston,	2458
20	19	Saybrook,	3122	48	52	Easton,	2440
22	20	Suffield,	3079	46	53	Meriden,	2440
32	21	Goshen,	3026	69	54	Sharon,	2429
15	22	Pomfret,	3019	93	55	Prospect,	2422
18	23	Washington,	2981	90	56	Sherman,	2391
41	24	Roxbury,	2945	53	57	New Fairfield,	2385
35	25	Lebanon,	2941	56	58	Newington,	2375
40	26	Middlefield,	2930	65	59	Salisbury,	2362
24	27	Bethany,	2903	67	60	Bridgewater,	2349
36	28	Westport,	2902	80	61	Beacon Falls,	2346
30	29	Andover,	2887	58	62	Trumbull,	2343
23	30	Wethersfield,	2882	52	63	Hamden,	2330
39	31	Bloomfield,	2857	76	64	Waterbury,	2329
29	32	Orange,	2840	63	65	Windham,	2328
25	33	East Granby,	2832	74	66	Durham,	2305

† Included in Plymouth.

1874-75.	1875-76.	TOWNS.	Am't for each child.	1874-75.	1875-76.	TOWNS.	Am't for each child.
96	67	Canaan,	$2299	116	118	Groton,	$1724
60	68	Danbury,	2297	110	119	Naugatuck,	1722
27	69	Reading,	2295	107	120	Colebrook	1717
73	70	Canton,	2289	129	121	Cornwall,	1709
26	71	Simsbury,	2285	125	122	Milford,	1694
55	72	Bridgeport,	2263	115	123	Branford,	1694
86	73	Harwinton,	2261	117	124	North Canaan,	1687
83	74	New Canaan,	2230	120	125	Coventry,	1679
68	75	Hampton,	2217	147	126	Warren,	1676
78	76	Stratford,	2216	123	127	Newtown,	1674
57	77	East Hartford,	2216	119	128	Barkhamsted,	1667
70	78	Plainville,	2212	134	129	Mansfield,	1653
71	79	Weston,	2210	122	130	East Windsor,	1633
59	80	North Branford,	2189	139	131	Thompson,	1633
91	81	Montville,	2172	132	132	Killingworth,	1616
54	82	Avon,	2154	135	133	Ledyard,	1610
84	83	Huntington,	2147	145	134	Bethel	1601
64	84	Portland,	2145	126	135	Bozrah,	1595
61	85	Middlebury,	2144	130	136	Haddam,	1579
79	86	Franklin,	2140	133	137	Cromwell,	1577
75	87	Monroe,	2121	141	138	Wilton,	1561
89	88	Old Saybrook,	2103	143	139	Granby,	1545
87	89	Madison,	2088	128	140	Vernon,	1529
82	90	Norwalk,	2086	137	141	Enfield,	1504
88	91	Norfolk,	2082	146	142	Columbia,	1492
94	92	Colchester,	2082	156	143	Putnam,	1471
85	93	Clinton,	2073	153	144	New Hartford,	1471
97	94	Windsor,	1980	131	145	Derby,	1468
108	95	North Haven,	1976	138	146	Rocky Hill	1458
81	96	Bristol,	1968	136	147	New Britain,	1446
105	97	Plymouth,	1968	155	148	Killingly,	1438
95	98	Griswold,	1963	148	149	Old Lyme,	1434
99	99	Salem,	1944	149	150	Glastonbury,	1433
98	100	Berlin,	1935	154	151	Preston,	1421
104	101	Hartland,	1934	140	152	Ashford,	1419
144	102	Waterford,	1929	124	153	Union,	1411
103	103	East Haddam,	1922	157	154	Sterling,	1409
106	104	Greenwich,	1901	151	155	East Lyme,	1394
100	105	Plainfield,	1892	150	156	Marlborough,	1391
121	106	Chester,	1889	152	157	Stafford,	1367
101	107	Bolton,	1879	159	158	Burlington	1331
102	108	Woodstock,	1871	161	159	Kent	1272
109	109	North Stonington,	1852	142	160	Chatham,	1266
113	110	Canterbury,	1850	158	161	Tolland	1259
112	111	Manchester,	1836	160	162	Sprague,	1221
92	112	Torrington,	1830	162	163	Eastford,	1188
127	113	Chaplin,	1825	164	164	Lyme,	1160
77	114	Hebron,	1823	165	165	Windsor Locks,	1068
118	115	Southington,	1778	163	166	Willington,	1063
111	116	Seymour,	1759	166	167	Voluntown,	831
114	117	Oxford,	1745				

The same figures are next given by Counties.

TABLE I—continued.

In which the Towns of each County are arranged according to their amount of taxable property to each child between the ages of four and sixteen years.

1874-75.	1875-76.	TOWNS.	Am't for each child.
		HARTFORD CO.	
1	1	Hartford,	$5055
2	2	West Hartford,	4860
3	3	South Windsor,	3759
4	4	Suffield,	3079
5	5	Wethersfield,	2882
8	6	Bloomfield,	2857
6	7	East Granby,	2832
9	8	Farmington,	2625
11	9	Newington,	2375
14	10	Canton,	2289
7	11	Simsbury,	2285
12	12	East Hartford,	2216
13	13	Plainville,	2212
10	14	Avon,	2154
16	15	Windsor,	1980
15	16	Bristol,	1968
17	17	Berlin,	1935
18	18	Hartland,	1934
19	19	Manchester,	1836
20	20	Southington,	1778
21	21	East Windsor,	1633
25	22	Granby,	1545
23	23	Enfield	1504
24	24	Rocky Hill,	1458
22	25	New Britain,	1446
26	26	Glastonbury,	1433
27	27	Marlborough,	1391
28	28	Burlington,	1331
29	29	Windsor Locks,	1068
		NEW HAVEN CO.	
1	1	New Haven,	4465
2	2	East Haven,	3227
3	3	Bethany,	2903
4	4	Orange,	2840
5	5	Woodbridge,	2653
6	6	Guilford,	2650
9	7	Wallingford,	2541
8	8	Wolcott,	2508
10	9	Southbury,	2490
14	10	Cheshire,	2463
7	11	Meriden,	2440
18	12	Prospect,	2422
16	13	Beacon Falls,	2346
11	14	Hamden,	2330
15	15	Waterbury,	$2329
12	16	North Branford,	2189
13	17	Middlebury,	2144
17	18	Madison,	2088
19	19	North Haven,	1976
21	20	Seymour,	1759
22	21	Oxford,	1745
20	22	Naugatuck,	1722
24	23	Milford,	1694
23	24	Branford,	1694
25	25	Derby,	1468
		NEW LONDON CO.	
2	1	Lisbon,	4081
1	2	Stonington,	3878
4	3	New London,	3427
3	4	Norwich,	3141
5	5	Lebanon,	2941
7	6	Montville,	2172
6	7	Franklin,	2140
8	8	Colchester,	2082
9	9	Griswold,	1963
10	10	Salem,	1944
15	11	Waterford,	1929
11	12	North Stonington,	1852
12	13	Groton,	1724
14	14	Ledyard,	1610
13	15	Bozrah,	1595
16	16	Old Lyme,	1434
18	17	Preston,	1421
17	18	East Lyme,	1394
19	19	Sprague,	1221
20	20	Lyme,	1160
		FAIRFIELD CO.	
1	1	Darien,	4189
2	2	Stamford,	3285
6	3	Westport,	2902
4	4	Ridgefield,	2764
5	5	Brookfield,	2760
7	6	Fairfield,	2744
8	7	Easton,	2440
19	8	Sherman,	2391
9	9	New Fairfield,	2385
11	10	Trumbull,	2343
12	11	Danbury,	2297
3	12	Reading,	2295

1874-75.	1875-76.	TOWNS.	Am't for each child.
10	13	Bridgeport,	$2263
17	14	New Canaan,	2230
15	15	Stratford,	2216
13	16	Weston,	2210
18	17	Huntington,	2147
14	18	Monroe,	2121
16	19	Norwalk,	2086
20	20	Greenwich,	1901
21	21	Newtown,	1674
23	22	Bethel,	1601
22	23	Wilton,	1561
		WINDHAM CO.	
1	1	Scotland,	4097
2	2	Pomfret,	3019
3	3	Brooklyn,	2792
4	4	Windham,	2328
5	5	Hampton,	2217
6	6	Plainfield,	1892
7	7	Woodstock,	1871
8	8	Canterbury,	1850
9	9	Chaplin,	1825
10	10	Thompson,	1633
13	11	Putnam,	1471
12	12	Killingly,	1438
11	13	Ashford,	1419
14	14	Sterling,	1409
15	15	Eastford,	1188
16	16	Voluntown,	831
		LITCHFIELD CO.	
1	1	Watertown,	4734
2	2	Bethlehem,	4061
3	3	Winchester,	3178
5	4	Goshen,	3026
4	5	Washington,	2981
7	6	Roxbury,	2945
9	7	Woodbury,	2810
8	8	Litchfield,	2759
6	9	New Milford,	2595
11	10	Morris,	2489
†	11	Thomaston,	2458
13	12	Sharon,	2429
10	13	Salisbury,	2362
12	14	Bridgewater,	2349
17	15	Canaan,	2299
14	16	Harwinton,	2261
15	17	Norfolk,	2082
18	18	Plymouth,	1968
16	19	Torrington,	1830
19	20	Colebrook,	1717
2	21	Cornwall,	1709
20	22	North Canaan,	$1687
23	23	Warren,	1676
21	24	Barkhamsted,	1667
24	25	New Hartford,	1471
25	26	Kent,	1272
		MIDDLESEX CO.	
1	1	Middletown,	3935
2	2	Essex,	3540
3	3	Westbrook,	3241
4	4	Saybrook,	3122
5	5	Middlefield,	2930
7	6	Durham,	2305
6	7	Portland,	2145
9	8	Old Saybrook,	2103
8	9	Clinton,	2073
10	10	East Haddam,	1922
11	11	Chester,	1889
13	12	Killingworth,	1616
12	13	Haddam,	1579
14	14	Cromwell,	1577
15	15	Chatham,	1266
		TOLLAND CO.	
1	1	Andover,	2887
3	2	Ellington,	2635
2	3	Somers,	2511
5	4	Bolton,	1879
4	5	Hebron,	1823
6	6	Coventry,	1679
9	7	Mansfield,	1653
8	8	Vernon,	1529
10	9	Columbia,	1492
7	10	Union,	1411
11	11	Stafford,	1367
12	12	Tolland,	1259
13	13	Willington,	1063

		THE COUNTIES.	1874-75.	1875-76.
1	1	New Haven,	$3082	$3130
2	2	Hartford,	3020	3016
3	3	Middlesex,	2626	2669
4	4	New London,	2498	2570
6	5	Litchfield,	2325	2369
5	6	Fairfield,	2362	2346
7	7	Windham,	1747	1829
8	8	Tolland,	1707	1633
		The State,	2623	2652

† Included in Plymouth.

TABLE II.

In which all the Towns in the State are arranged according to the percentage of their taxable property appropriated for Public Schools during the year ending August 31st, 1876.

The basis of comparison is the Grand List completed in 1875. The moneys included in this computation are those received for school purposes from Town Taxes, District Taxes, and Voluntary Contributions. The amount is given in mills and hundredths of a mill on the dollar; or the figures may be read so many dollars and cents on each thousand dollars.

This table is designed to show how much money was raised for public schools in each town, according to its *pecuniary ability*. The rank of the towns in this Table may be compared with their rank in Table I.

For a statement of the amount raised and received in each town for every child enumerated, see Table III.

In addition to the moneys included in this Table, each town paid, in proportion to its Grand List, its share of the amount distributed from the State Treasury to the several towns according to their respective number of children enumerated in January, 1876.

1874-75.	1875-76.	TOWNS.	Per cent. for schools.	1874-75.	1875-76.	TOWNS.	Per cent. for schools.
37	1	Bethel,	$7.75	43	31	Chatham,	$3.96
31	2	New Britain,	7.53	62	32	Haddam,	3.91
92	3	Woodbridge,	7.12	98	33	Fairfield,	3.85
70	4	Naugatuck,	6.82	52	34	Tolland,	3.80
25	5	Killingly,	6.56	82	35	Canaan,	3.78
15	6	Enfield,	6.35	107	36	Hebron,	3.78
3	7	East Windsor,	5.96	53	37	Union,	3.72
60	8	Coventry,	5.73	50	38	Windham,	3.69
14	9	Vernon,	5.58	59	39	Bridgeport,	3.68
116	10	Colebrook,	5.46	27	40	Glastonbury,	3.66
12	11	Windsor Locks,	5.36	80	41	Chester,	3.66
33	12	Meriden,	5.19	75	42	Granby,	3.61
91	13	Warren,	5.18	22	43	Putnam,	3.53
54	14	Preston,	4.94	40	44	Bloomfield,	3.45
9	15	Derby,	4.67	44	45	Kent,	3.43
21	16	Bristol,	4.67	125	46	Ridgefield,	3.39
10	17	Killingworth,	4.65	64	47	Branford,	3.39
46	18	Groton,	4.63	63	48	Norwich,	3.39
20	19	Plymouth,	4.47	1	49	Southington,	3.38
17	20	Wallingford,	4.38	29	50	Seymour,	3.36
23	21	Farmington,	4.38	84	51	Griswold,	3.35
73	22	Rocky Hill,	4.33	58	52	Willington,	3.34
16	23	East Hartford,	4.30	55	53	Voluntown,	3.31
13	24	Canton,	4.25	56	54	Canterbury,	3.30
4	25	Ashford,	4.21	38	55	Oxford,	3.26
7	26	Windsor,	4.18	35	56	Columbia,	3 26
19	27	Hartland,	4.12	6	57	Torrington,	3.24
162	28	Newington,	4.12	24	58	Huntington,	3.23
36	29	Prospect,	4.09	39	59	Cornwall,	3.21
145	30	North Haven,	4.03	143	60	Cheshire,	3.21

1874-75.	1875-76.	TOWNS.	Per cent. for schools.
41	61	Easton,	$3.20
81	62	Manchester,	3.20
141	63	New Milford,	3.17
67	64	Sterling,	3.16
49	65	Madison,	3.14
71	66	Harwinton,	3.14
51	67	Burlington,	3.13
26	68	Mansfield,	3.12
48	69	Hartford,	3.11
18	70	Norwalk,	3.10
65	71	Cromwell,	3.07
76	72	Eastford,	3.07
8	73	Danbury,	3.04
47	74	Plainville,	3.04
112	75	Stafford,	3.02
32	76	New Canaan,	3.02
102	77	Guilford,	3.02
66	78	Barkhamsted,	2.98
28	79	Brooklyn,	2.97
114	80	Montville,	2.90
99	81	Clinton,	2.90
108	82	Ledyard,	2.85
86	83	New Haven,	2.85
142	84	Washington,	2.84
103	85	Stratford,	2.83
79	86	New Fairfield,	2.83
68	87	Bolton,	2.83
87	88	Portland,	2.82
115	89	Salem,	2.80
90	90	South Windsor,	2.79
97	91	North Stonington,	2.78
136	92	Bethlehem,	2.78
130	93	Avon,	2.77
117	94	Winchester,	2.76
123	95	Simsbury,	2.75
72	96	Berlin,	2.70
95	97	Somers,	2.70
34	98	East Haddam,	2.69
158	99	Bozrah,	2.60
69	100	Greenwich,	2.59
*	101	Thomaston,	2.58
120	102	Brookfield,	2.58
165	103	Milford,	2.57
85	104	Sherman,	2.56
104	105	Middletown,	2.55
101	106	Wilton,	2.55
2	107	Chaplin,	2.55
110	108	Hamden,	2.54
137	109	Suffield,	2.53
124	110	Roxbury,	2.53
88	111	New London,	2.52
146	112	Monroe,	2.52
89	113	Bethany,	2.51
57	114	Marlborough,	2.50
45	115	Sharon,	$2.47
119	116	Reading,	2.46
105	117	Trumbull,	2.44
96	118	Beacon Falls,	2.36
131	119	Hampton,	2.33
129	120	Norfolk,	2.33
42	121	Waterbury,	2.33
5	122	North Branford,	2.31
61	123	Colchester,	2.29
94	124	Saybrook,	2.27
11	125	New Hartford,	2.24
133	126	Woodstock,	2.17
121	127	Orange,	2.17
78	128	Ellington,	2.13
74	129	East Granby,	2.11
144	130	Weston,	2.08
113	131	Andover,	2.07
153	132	Bridgewater,	2.05
135	133	Scotland,	2.03
30	134	West Hartford,	2.01
149	135	Lisbon,	2.00
138	136	Westbrook,	1.98
93	137	Franklin,	1.97
106	138	Durham,	1.96
132	139	Middlefield,	1.95
109	140	Lebanon,	1.93
126	141	Newtown,	1.88
111	142	Southbury,	1.88
161	143	Wolcott,	1.85
152	144	East Haven,	1.81
127	145	Morris,	1.81
147	146	Woodbury,	1.81
155	147	Goshen,	1.81
77	148	Stonington,	1.80
134	149	Stamford,	1.80
159	150	Pomfret,	1.80
122	151	Old Lyme,	1.79
140	152	Lyme,	1.62
148	153	Watertown,	1.62
139	154	Salisbury,	1.58
157	155	Litchfield,	1.58
154	156	Middlebury,	1.53
150	157	Westport,	1.50
151	158	Thompson,	1.50
100	159	Plainfield,	1.43
156	160	Wethersfield,	1.43
118	161	Waterford,	1.42
163	162	North Canaan,	1.34
164	163	Essex,	1.33
128	164	East Lyme,	1.28
160	165	Darien,	0.99
166	166	Old Saybrook,	0.82
83	167	Sprague,	0.35

* New Town, included in Plymouth.

The order of the Towns in the several Counties is as follows:

TABLE II—continued.

The Towns in each County arranged according to the percentage of their property appropriated for Public Schools during the year ending August 31st, 1876.

1874-75.	1875-76.	TOWNS.	Per cent. for schools.
		HARTFORD CO.	
13	1	New Britain,	$7.53
6	2	Enfield,	6.35
2	3	East Windsor,	5.96
4	4	Windsor Locks,	5.36
9	5	Bristol,	4.67
10	6	Farmington,	4.38
20	7	Rocky Hill,	4.33
7	8	East Hartford,	4.30
5	9	Canton,	4.25
3	10	Windsor,	4.18
8	11	Hartland,	4.12
29	12	Newington,	4.12
11	13	Glastonbury,	3.66
22	14	Granby,	3.61
14	15	Bloomfield,	3.45
1	16	Southington,	3.38
23	17	Manchester,	3.20
17	18	Burlington,	3.13
16	19	Hartford,	3.11
15	20	Plainville,	3.04
24	21	South Windsor,	2.79
26	22	Avon,	2.77
25	23	Simsbury,	2.75
19	24	Berlin,	2.71
27	25	Suffield,	2.53
18	26	Marlborough,	2.50
21	27	East Granby,	2.11
12	28	West Hartford,	2.01
28	29	Wethersfield,	1.43
		NEW HAVEN CO.	
14	1	Woodbridge,	7.12
11	2	Naugatuck,	6.82
5	3	Meriden,	5.19
2	4	Derby,	4.67
3	5	Wallingford,	4.38
6	6	Prospect,	4.09
21	7	North Haven,	4.03
10	8	Branford,	3.39
4	9	Seymour,	3.36
7	10	Oxford,	3.26
20	11	Cheshire,	3.21
9	12	Madison,	3.14
16	13	Guilford,	3.02
12	14	New Haven,	2.85
25	15	Milford,	$2.57
17	16	Hamden,	2.54
13	17	Bethany,	2.51
15	18	Beacon Falls,	2.36
8	19	Waterbury,	2.33
1	20	North Branford,	2.31
19	21	Orange,	2.17
18	22	Southbury,	1.88
24	23	Wolcott,	1.85
22	24	East Haven,	1.81
23	25	Middlebury,	1.53
		NEW LONDON CO.	
2	1	Preston,	4.94
1	2	Groton,	4.63
4	3	Norwich,	3.39
7	4	Griswold,	3.35
13	5	Montville,	2.90
11	6	Ledyard,	2.85
14	7	Salem,	2.80
10	8	North Stonington,	2.78
20	9	Bozrah,	2.60
8	10	New London,	2.52
3	11	Colchester,	2.29
19	12	Lisbon,	2.00
9	13	Franklin,	1.97
12	14	Lebanon,	1.93
5	15	Stonington,	1.80
16	16	Old Lyme,	1.79
18	17	Lyme,	1.62
15	18	Waterford,	1.42
17	19	East Lyme,	1.28
6	20	Sprague,	0.35
		FAIRFIELD CO.	
5	1	Bethel,	7.75
11	2	Fairfield,	3.85
7	3	Bridgeport,	3.68
17	4	Ridgefield,	3.39
3	5	Huntington,	3.23
6	6	Easton,	3.20
2	7	Norwalk,	3.10
1	8	Danbury,	3.04
4	9	New Canaan,	3.02
13	10	Stratford,	2.83
9	11	New Fairfield,	2.83
8	12	Greenwich,	2.59

1874-75.	1875-76.	TOWNS.	Per cent. for schools.
16	13	Brookfield,	$2.58
10	14	Sherman,	2.56
12	15	Wilton,	2.55
21	16	Monroe,	2.52
15	17	Reading,	2.46
14	18	Trumbull,	2.44
20	19	Weston,	2.08
18	20	Newtown,	1.88
19	21	Stamford,	1.80
22	22	Westport,	1.50
23	23	Darien,	0.99
		WINDHAM CO.	
4	1	Killingly,	6.56
2	2	Ashford,	4.21
6	3	Windham,	3.69
3	4	Putnam,	3.53
7	5	Voluntown,	3.31
8	6	Canterbury,	3.30
9	7	Sterling,	3.16
10	8	Eastford,	3.07
5	9	Brooklyn,	2.97
1	10	Chaplin,	2.55
12	11	Hampton,	2.33
13	12	Woodstock,	2.17
14	13	Scotland,	2.03
16	14	Pomfret,	1.80
15	15	Thompson,	1.50
11	16	Plainfield,	1.43
		LITCHFIELD CO.	
11	1	Colebrook,	5.46
10	2	Warren,	5.18
3	3	Plymouth,	4.47
9	4	Canaan,	3.78
5	5	Kent,	3.43
1	6	Torrington,	3.24
4	7	Cornwall,	3.21
18	8	New Milford,	3.17
8	9	Harwinton,	3.14
7	10	Barkhamsted,	2.98
19	11	Washington,	2.84
16	12	Bethlehem,	2.78
12	13	Winchester,	2.76
*	14	Thomaston,	2.58
13	15	Roxbury,	2.53
6	16	Sharon,	2.47
15	17	Norfolk,	2.33
2	18	New Hartford,	2.24
22	19	Bridgewater,	2.05
14	20	Morris,	1.81
20	21	Woodbury,	1.81
23	22	Goshen,	$1.81
21	23	Watertown,	1.62
17	24	Salisbury,	1.58
24	25	Litchfield,	1.58
25	26	North Canaan,	1.34
		MIDDLESEX CO.	
1	1	Killingworth,	4.65
3	2	Chatham,	3.96
4	3	Haddam,	3.91
6	4	Chester,	3.66
5	5	Cromwell,	3.07
9	6	Clinton,	2.90
7	7	Portland,	2.82
2	8	East Haddam,	2.69
10	9	Middletown,	2.55
8	10	Saybrook,	2.27
13	11	Westbrook,	1.98
11	12	Durham,	1.96
12	13	Middlefield,	1.95
14	14	Essex,	1.33
15	15	Old Saybrook,	0.82
		TOLLAND CO.	
7	1	Coventry,	5.73
1	2	Vernon,	5.58
4	3	Tolland,	3.80
11	4	Hebron,	3.78
5	5	Union,	3.72
6	6	Willington,	3.34
3	7	Columbia,	3.26
2	8	Mansfield,	3.12
12	9	Stafford,	3.02
8	10	Bolton,	2.83
10	11	Somers,	2.70
9	12	Ellington,	2.13
13	13	Andover,	2.07

		THE COUNTIES.	1874-75.	1875-76.
2	1	Tolland,	$3.60	$4.00
1	2	Hartford,	3.91	3.58
3	3	Windham,	3.30	3.17
5	4	New Haven,	3.00	3.16
4	5	Fairfield,	3.24	2.89
6	6	New London,	2.85	2.76
7	7	Litchfield,	2.74	2.58
8	8	Middlesex,	2.51	2.58
		The State,	$3.22	$3.11

* Included in Plymouth.

TABLE III.

In which all the Towns in the State are arranged according to the amount of money which they report as raised and received for the Public Schools from all sources for each child enumerated; not including money for new school houses.

The money raised for building new school houses is not included in these computations, because it is for a special and occasional object. The thirty towns in which additional money was raised for that object are designated by a *.

☞ See page 148, also note on page 159. Table II, on the previous pages, shows how much each town raised in proportion to its pecuniary ability.

1874-75.	1875-76.	TOWNS.	Am't for each child.	1874-75.	1875-76.	TOWNS.	Am't for each child.
1	1	*Hartford,	$16.85	136	43	*Killingly,	$10.42
22	2	Bethlehem,	15.06	101	44	*Bethel,	10.31
6	3	*New Haven,	14.95	71	45	*New Britain,	10.24
8	4	Wolcott,	14.57	130	46	Preston,	10.19
4	5	Canton,	14.34	123	47	*Colebrook,	10.18
5	6	Wallingford,	14.31	52	48	New Fairfield,	10.16
15	7	Middletown,	14.12	46	49	Somers,	10.12
20	8	South Windsor,	13.83	104	50	Southington,	10.11
47	9	Prospect,	13.53	110	51	*Canaan,	10.11
21	10	East Hartford,	13.41	125	52	Chester,	9.97
23	11	Norwich,	13.39	45	53	Madison,	9.96
2	12	*Farmington,	13.36	53	54	Andover,	9.91
19	13	New London,	13.08	24	55	Huntington,	9.90
27	14	Windham,	12.90	37	56	Stonington,	9.85
12	15	West Hartford,	12.88	57	57	Wethersfield,	9.78
16	16	*Woodbridge,	12.85	3	58	Clinton,	9.76
7	17	East Windsor,	12.78	70	59	Canterbury,	9.71
38	18	Bristol,	12.59	75	60	*Coventry,	9.64
35	19	*Meriden,	12.55	107	61	Griswold,	9.63
41	20	Bridgeport,	12.47	42	62	Oxford,	9.59
43	21	Enfield,	12.36	94	63	Sherman,	9.58
50	22	Winchester,	12.11	†	64	Thomaston,	9.56
86	23	Lisbon,	12.10	74	65	Berlin,	9.54
11	24	Easton,	11.89	58	66	Westbrook,	9.53
33	25	Plymouth,	11.75	116	67	*Naugatuck,	9.53
25	26	Scotland,	11.73	120	68	Goshen,	9.52
18	27	Hartland,	11.71	92	69	*Suffield,	9.51
44	28	Windsor,	11.70	69	70	Plainville,	9.50
36	29	Guilford,	11.57	134	71	Rocky Hill,	9.48
9	30	Brooklyn,	11.47	117	72	Montville,	9.48
40	31	Vernon,	11.19	29	73	Ellington,	9.48
13	32	Killingworth,	11.13	68	74	Simsbury,	9.45
59	33	*Fairfield,	11.07	54	75	Lebanon,	9.44
34	34	Watertown,	11.01	108	76	Stratford,	9.41
79	35	Roxbury,	11.00	31	77	Sharon,	9.38
144	36	Cheshire,	10.89	65	78	Colchester,	9.36
32	37	Bethany,	10.89	115	79	*New Canaan,	9.34
64	38	Harwinton,	10.86	28	80	East Granby,	9.33
26	39	Danbury,	10.85	14	81	Norwalk,	9.27
10	40	Derby,	10.72	84	82	Ashford,	9.19
82	41	Brookfield,	10.71	133	83	Monroe,	9.18
39	42	Saybrook,	10.70	67	84	Bolton,	9.16

† New town, included in Plymouth.

1874-75.	1875-76.	TOWNS.	Am't for each child.	1874-75.	1875-76.	TOWNS.	Am't for each child.
122	85	Pomfret,	$9.13	145	127	Bridgewater,	$8.21
89	86	Trumbull,	9.05	72	128	*Groton,	8.08
95	87	Middlefield,	9.03	138	129	Weston,	8.04
80	88	Orange,	9.02	91	130	Southbury,	8.04
17	89	Torrington,	9.01	78	131	Durham,	7.93
55	90	Mansfield,	8.96	127	132	Litchfield,	7.91
121	91	Salem,	8.96	106	133	Putnam,	7.90
93	92	Portland,	8.94	99	134	Greenwich,	7.86
73	93	*Washington,	8.93	148	135	Essex,	7.79
63	94	Reading,	8.87	141	136	Sterling,	7.69
51	95	Franklin,	8.87	119	137	Kent,	7.62
96	96	Beacon Falls,	8.82	137	138	Cromwell,	7.62
97	97	North Stonington,	8.79	165	139	Milford,	7.57
83	98	Glastonbury,	8.78	113	140	Morris,	7.49
102	99	Hamden,	8.77	126	141	Woodstock,	7.48
60	100	North Branford,	8.76	135	142	*Granby,	7.42
76	101	Cornwall,	8.75	139	143	Westport,	7.30
56	102	Seymour,	8.73	98	144	*Haddam,	7.23
128	103	Manchester,	8.70	100	145	Darien,	7.21
111	104	Stamford,	8.69	155	146	Stafford,	7.03
131	105	East Haven,	8.66	132	147	Burlington,	6.98
48	106	*Bloomfield,	8.64	143	148	Willington,	6.96
114	107	Hampton,	8.64	149	149	Eastford,	6.92
61	108	Chatham,	8.64	147	150	Middlebury,	6.75
103	109	Branford,	8.62	153	151	*North Haven,	6.57
88	110	Union,	8.61	150	152	Salisbury,	6.56
82	111	*Hebron,	8.59	146	153	Newtown,	6.53
112	112	Woodbury,	8.53	49	154	New Hartford,	6.51
85	113	Barkhamsted,	8.49	159	155	*Newington,	6.31
105	114	*New Milford,	8.48	160	156	Voluntown,	5.98
129	115	Ledyard,	8.45	152	157	Waterford,	5.87
81	116	*East Haddam,	8.42	156	158	Old Lyme,	5.71
109	117	Windsor Locks,	8.41	158	159	Plainfield,	5.56
140	118	*Warren,	8.39	154	160	East Lyme,	5.50
66	119	*Ridgefield,	8.37	142	161	*Wilton,	5.32
118	120	Tolland,	8.36	161	162	Lyme,	5.28
30	121	Waterbury,	8.32	162	163	*Bozrah,	5.23
87	122	*Avon,	8.27	164	164	North Canaan,	5.18
151	123	Chaplin,	8.25	163	165	Thompson,	5.13
124	124	Norfolk,	8.25	166	166	Old Saybrook,	4.73
90	125	Columbia,	8.24	157	167	Sprague,	3.09
77	126	Marlborough,	8.23				

NOTE.—In preparing this table, the design has been to exclude all moneys *raised* for new school houses. The amounts *expended* for that object are given on page 148. But in several town the amounts excluded in these calculations differ from the amounts there given. These differences are as follows: In Hartford, $26,303.46 excluded, instead of $8,000. In Bloomfield, $1,480 excluded. In Farmington, $1,500 excluded. In Derby, nothing excluded. In Meriden, $9,447 excluded, instead of $3,692.10. In Milford, nothing excluded. In Naugatuck, $4,200 excluded, instead of $5,774.34. In Groton, $3,281.12 excluded. In Salem, nothing excluded. In Danbury, nothing excluded. In Bethel, $2,900 excluded. In Killingly, $3,058.45 excluded, instead of $6,400. In New Milford, $2,554.56, excluded, instead of $11,500. In Warren, $600 excluded, instead of $800. In Coventry, $1,750 excluded.

The order of the Towns in each County is given below.

TABLE III.—continued.

The Towns in each County arranged according to the amount of money which they report as raised and received for Public Schools from all sources for each child enumerated.

Money for new school houses is not included. The towns in which additional money was raised for that purpose are designated by a *.

☞ See page 148, also note on page 159.

1874-75.	1875-76.	TOWNS.	Am't for each child.
		HARTFORD CO.	
1	1	*Hartford,	$16.85
3	2	Canton,	14.34
7	3	South Windsor,	13 83
8	4	East Hartford,	13.41
2	5	*Farmington,	13.36
5	6	West Hartford,	12.88
4	7	East Windsor,	12.78
10	8	Bristol,	12.59
11	9	Enfield,	12.36
6	10	Hartland,	11.71
12	11	Windsor.	11.70
17	12	*New Britain,	10.24
23	13	Southington,	10.11
14	14	Wethersfield,	9.78
18	15	Berlin,	9.54
22	16	*Suffield,	9.51
16	17	Plainville,	9.50
27	18	Rocky Hill,	9.48
15	19	Simsbury,	9.45
9	20	East Granby,	9.33
20	21	Glastonbury,	8.78
25	22	Manchester,	8.70
13	23	*Bloomfield,	8.64
24	24	Windsor Locks,	8.41
21	25	*Avon,	8.27
19	26	Marlborough,	8.23
28	27	*Granby,	7.42
26	28	Burlington,	6.98
29	29	*Newington,	6.31
		NEW HAVEN CO.	
2	1	*New Haven,	14.95
3	2	Wolcott,	14.57
1	3	Wallingford,	14.31
12	4	Prospect,	13.53
5	5	*Woodbridge,	12.85
8	6	*Meriden,	12.55
9	7	Guilford,	11.57
22	8	Cheshire,	10.89
7	9	Bethany,	10.89
4	10	Derby,	10.72
11	11	Madison,	9.96
10	12	Oxford,	9.59
20	13	*Naugatuck,	9.53
15	14	Orange,	9.02
17	15	Beacon Falls,	$8.82
18	16	Hamden,	8.77
14	17	North Branford,	8.76
13	18	Seymour,	8.73
21	19	East Haven,	8.66
19	20	Branford,	8.62
6	21	Waterbury,	8.32
16	22	Southbury,	8.04
25	23	Milford,	7.57
23	24	Middlebury,	6.75
24	25	*North Haven,	6.57
		NEW LONDON CO.	
2	1	Norwich,	13.39
1	2	New London,	13 08
8	3	Lisbon,	12.10
14	4	Preston,	10.19
3	5	Stonington,	9.85
10	6	Griswold,	9.63
11	7	Montville,	9.48
5	8	Lebanon,	9.44
6	9	Colchester,	9.36
12	10	Salem,	8.96
4	11	Franklin,	8.87
9	12	North Stonington,	8.79
13	13	Ledyard,	8.45
7	14	*Groton,	8.08
15	15	Waterford,	5.87
17	16	Old Lyme,	5.71
16	17	East Lyme,	5.50
19	18	Lyme,	5.28
20	19	*Bozrah,	5.23
18	20	Sprague,	3.09
		FAIRFIELD CO.	
5	1	Bridgeport,	12.47
1	2	Easton,	11.89
7	3	*Fairfield,	11.07
4	4	Danbury,	10.85
8	5	Brookfield,	10.71
15	6	*Bethel,	10.31
6	7	New Fairfield,	10.16
3	8	Huntington,	9.90
12	9	Sherman,	9.58
16	10	Stratford,	9.41
18	11	*New Canaan,	9.34
2	12	Norwalk,	9.27

1874-75.	1875-76.	TOWNS.	Am't for each child.
19	13	Monroe,	$9.18
11	14	Trumbull,	9.05
9	15	Reading,	8.87
17	16	Stamford,	8.69
10	17	*Ridgefield,	8.37
20	18	Weston,	8.04
13	19	Greenwich,	7.86
21	20	Westport,	7.30
14	21	Darien,	7.21
23	22	Newtown,	6.53
22	23	*Wilton,	5.32
		WINDHAM CO.	
3	1	Windham,	12.90
2	2	Scotland,	11.73
1	3	Brooklyn,	11.47
10	4	*Killingly,	10.42
4	5	Canterbury,	9.71
5	6	Ashford,	9.19
8	7	Pomfret,	9.13
7	8	Hampton,	8.64
13	9	Chaplin,	8.25
6	10	Putnam,	7.90
11	11	Sterling,	7.69
9	12	Woodstock,	7.48
12	13	Eastford,	6.92
15	14	Voluntown,	5.98
14	15	Plainfield,	5.56
16	16	Thompson,	5.13
		LITCHFIELD CO.	
2	1	Bethlehem,	15.06
7	2	Winchester,	12.11
4	3	Plymouth,	11 75
5	4	Watertown,	11.01
11	5	Roxbury,	11.00
8	6	Harwinton,	10.86
19	7	*Colebrook,	10.18
14	8	*Canaan,	10.11
†	9	Thomaston,	9.56
18	10	Goshen,	9.52
3	11	Sharon,	9.38
1	12	Torrington,	9.01
9	13	*Washington,	8.93
10	14	Cornwall,	8.75
15	15	Woodbury,	8.53
12	16	Barkhamsted,	8.49
13	17	*New Milford,	8.48
22	18	*Warren,	8.39
20	19	Norfolk,	8.25
23	20	Bridgewater,	8.21
21	21	Litchfield,	$7.91
17	22	Kent,	7.62
16	23	Morris,	7.49
24	24	Salisbury,	6.56
6	25	New Hartford,	6.51
25	26	North Canaan,	5.18
		MIDDLESEX CO.	
3	1	Middletown,	14.12
2	2	Killingworth,	11.13
4	3	Saybrook,	10.70
12	4	Chester,	9.97
1	5	Clinton,	9.76
5	6	Westbrook,	9.53
10	7	Middlefield,	9.03
9	8	Portland,	8 94
6	9	Chatham,	8.64
8	10	*East Haddam,	8.42
7	11	Durham,	7.93
14	12	Essex,	7.79
13	13	Cromwell,	7.62
11	14	*Haddam,	7.23
15	15	Old Saybrook,	4.73
		TOLLAND CO.	
2	1	Vernon,	11.19
3	2	Somers,	10.12
4	3	Andover,	9.91
7	4	*Coventry,	9.64
1	5	Ellington,	9.48
6	6	Bolton,	9.16
5	7	Mansfield,	8.96
9	8	Union,	8.61
8	9	*Hebron,	8.59
11	10	Tolland,	8.36
10	11	Columbia,	8.24
13	12	Stafford,	7.03
12	13	Willington,	6.96

		THE COUNTIES.	1874-5.	1875-6.
1	1	Hartford,	$15 44	$14.30
2	2	New Haven,	12.42	12.88
5	3	Middlesex,	10.30	10.38
4	4	New London,	10.48	10.32
3	5	Fairfield,	10.83	10.26
7	6	Tolland,	9.50	9 75
6	7	Litchfield,	9.86	9.42
8	8	Windham,	9.00	8.99
		The State,	$11.81	$11.54

† New town, included in Plymouth.

TABLE IV.

In which all the Towns in the State are arranged according to the percentage of their children who attended the Public Schools during some part of the year ending August 31st, 1876.

This Table is formed by comparing the whole number of *different* scholars registered in each town with the number of children enumerated in January, 1876;—i. e., the numbers in column 12 with those in column 8 in the statistical tables of the several Counties, pages 130–145. The very large percentage in some towns results from one or more of the following causes: 1. The attendance of scholars over 16 years of age. 2. The attendance of those under 4 years of age. 3. The attendance of those residing in adjoining towns. 4. The removal of families with children into a town after the enumeration has been made.

In preparing this Table, those children who attended other schools than the Public Schools are not taken into account. In some towns a large proportion of the children are in private schools, as will be seen by column 13 in the tables above mentioned.

1874-75.	1875-76.	TOWNS.	Per cent. in public schools.	Reg'd over 16.	1874-75.	1875-76.	TOWNS.	Per cent. in public schools.	Reg'd over 16.
8	1	Hartland,	133.8	25	78	34	Barkhamsted,	105.1	24
41	2	Sherman,	122.1	27	59	35	Canton,	104.9	23
2	3	Clinton,	119.8	50	25	36	Watertown,	104.6	22
6	4	Roxbury,	118.4	20	72	37	Goshen,	104.4	14
7	5	Hampton,	117.8	21	83	38	Bridgewater,	104.4	11
15	6	New Fairfield,	115.5	9	40	39	Woodstock,	104 2	40
31	7	Andover,	114.9	12	82	40	Lisbon,	104.1	5
13	8	Scotland,	114.3	12	4	41	Killingworth,	103.9	12
1	9	Bethany,	113.6	12	21	42	Morris,	103.9	10
16	10	North Stonington,	112.9	40	74	43	Bethel,	103.4	10
33	11	Bethlehem,	112.7	6	34	44	Westbrook,	103.1	7
10	12	Harwinton,	111.7	26	139	45	South Windsor,	103.0	5
17	13	Franklin,	111.4	20	28	46	Pomfret,	102.7	14
18	14	Ledyard,	111.2	34	48	47	Prospect,	102.6	4
19	15	Chaplin,	111.0	16	101	48	Canaan,	102 2	20
39	16	Lebanon,	110.6	33	80	49	Somers,	102.0	4
9	17	Easton,	109.7	10	147	50	Voluntown,	101.5	25
24	18	Bolton,	109.4	13	89	51	Preston,	101.4	21
5	19	Wolcott,	108.5	3	23	52	Ridgefield,	101.3	9
12	20	Woodbridge,	108 2	14	103	53	Sterling,	101.1	12
32	21	Warren,	108.1	17	20	54	Hebron,	101.1	17
29	22	Windham,	108.0	61	37	55	Tolland,	101.0	22
11	23	Salem,	107.7	18	30	56	East Granby,	100.6	9
58	24	Brookfield,	107.6	10	55	57	Columbia,	100.5	18
43	25	Oxford,	107.6	13	26	58	Guilford,	100.2	63
35	26	Colebrook,	107.4	17	87	59	Colchester,	100.0	45
3	27	Eastford,	107.1	13	60	60	Monroe,	100.0	16
22	28	Canterbury,	107.1	19	77	61	Washington,	99.7	4
85	29	Woodbury,	106.8	15	36	62	Chester,	99.4	16
14	30	Ashford,	106.4	28	99	63	Suffield,	99.4	17
44	31	Montville,	106.0	23	86	64	Bloomfield,	99.4	18
45	32	Willington,	105.9	9	38	65	Madison,	99.0	19
56	33	Simsbury,	105.7	22	46	66	Mansfield,	98.8	34

1874-75.	1875-76.	TOWNS.	Per cent in public schools.	Reg'd over 16.	1874-75.	1875-76.	TOWNS.	Per cent. in public schools.	Reg'd over 16
53	67	Ellington,	98.6	11	102	118	Cheshire,	89.2	13
81	68	Southbury,	98.2	17	125	119	Norwalk,	88.7	31
68	69	Huntington,	97.8	3	100	120	Marlborough,	88.4	1
27	70	Norfolk,	97.7	12	121	121	Bozrah,	88 2	10
70	71	Naugatuck,	97.7	10	148	122	North Canaan,	88.0	21
115	72	Saybrook,	97.5	9	120	123	Waterbury,	88.0	22
110	73	Granby,	97.4	16	127	124	Darien,	87.9	16
63	74	North Branford,	97.4	14	134	125	Bridgeport,	87.8	81
42	75	Burlington,	97.4	22	93	126	Vernon,	87.8	42
52	76	Sharon,	97.3	26	116	127	Wilton,	87.4	6
84	77	Windsor,	97.3	28	131	128	Manchester,	87.2	39
122	78	Stonington,	97.0	80	112	129	Farmington,	87.2	5
61	79	Old Lyme,	96.8	17	155	130	New Hartford,	87.0	19
119	80	East Windsor,	96.7	31	135	131	Berlin,	86.9	9
90	81	Cromwell,	96.5	14	149	132	Fairfield,	86.7	25
128	82	East Hartford,	96.4	20	95	133	New Milford,	86.3	31
75	83	Avon,	96.4	5	49	134	West Hartford,	86.3	9
66	84	Cornwall,	96.3	23	153	135	Winchester,	85.7	14
117	85	Seymour,	96.2	18	140	136	Orange,	85.7	26
54	86	Coventry,	96.2	39	136	137	Windsor Locks,	85.3	14
76	87	Branford,	95.9	19	126	138	Haddam,	85.3	3
57	88	Wallingford,	95.9	31	137	139	Killingly,	85.2	84
118	89	Southington,	95.8	59	123	140	Glastonbury,	85.1	7
104	90	East Lyme,	95.8	18	133	141	North Haven,	85.0	30
91	91	Stratford,	95 2	4	88	142	Weston,	83.8	8
50	92	Bristol,	95.0	30	150	143	Durham,	83.7	8
67	93	Union,	94.9	9	151	144	New Haven,	83.6	278
96	94	Plymouth,	94.8	20	143	145	Hamden,	83.5	12
*	95	Thomaston,	94.7	23	164	146	Milford,	83.2	41
51	96	East Haddam,	94.5	16	69	147	Portland,	82.9	5
106	97	Wethersfield,	94.5	10	141	148	Newington,	82.8	0
111	98	Litchfield,	94.5	34	145	149	Norwich,	82.5	49
146	99	Danbury,	94.4	75	144	150	Trumbull,	82.0	10
73	100	Torrington,	94.3	29	129	151	Middletown,	81.6	122
79	101	Kent,	94.1	22	132	152	Beacon Falls,	80.4	0
92	102	Groton,	93.9	11	156	153	Hartford,	80.0	381
62	103	Newtown,	93.7	35	71	154	Reading,	79.4	12
97	104	New Canaan,	93.2	35	138	155	New Britain,	79.2	66
98	105	Waterford,	93.0	36	114	156	Stafford,	78.3	17
65	106	Rocky Hill,	92 9	7	157	157	Westport,	78.2	30
64	107	Plainville,	92.8	17	160	158	Plainfield,	77.8	31
107	108	Griswold,	92.7	35	154	159	Greenwich,	77.3	39
130	109	New London,	92.4	60	152	160	Meriden,	75 8	21
105	110	Lyme,	92.2	8	159	161	Brooklyn,	75.6	41
109	111	Salisbury,	91.6	21	161	162	Stamford,	74.3	62
124	112	Middlebury,	91.3	6	158	163	Enfield,	72.6	78
108	113	Middlefield,	91.2	5	162	164	Thompson,	69.9	38
142	114	East Haven,	90.9	18	163	165	Old Saybrook,	68.0	3
94	115	Essex,	90.1	4	166	166	Putnam,	41.4	60
113	116	Derby,	89.8	70	167	167	Sprague,	32.4	20
47	117	Chatham,	89.6	24					

* New town, included in Plymouth.

The order of the Towns in each County is next given.

TABLE IV—continued.

The Towns in each County arranged according to the percentage of their children who attended the Public Schools during some part of the year ending August 31st, 1876.

1874-75.	1875-76.	TOWNS.	Per cent. in public schools.	Reg'd over 16.
		HARTFORD CO.		
1	1	Hartland,	133.8	25
6	2	Simsbury,	105.7	22
7	3	Canton,	104.9	23
26	4	South Windsor,	103.0	5
2	5	East Granby,	100.6	9
13	6	Suffield,	99.4	17
12	7	Bloomfield,	99.4	18
16	8	Granby,	97.4	16
3	9	Burlington,	97.4	22
11	10	Windsor,	97.3	28
19	11	East Windsor,	96.7	31
21	12	East Hartford,	96.4	20
10	13	Avon,	96.4	5
18	14	Southington,	95.8	59
5	15	Bristol,	95.0	30
15	16	Wethersfield,	94.5	10
9	17	Rocky Hill,	92.9	7
8	18	Plainville,	92.8	17
14	19	Marlborough,	88.4	1
22	20	Manchester,	87.2	39
17	21	Farmington,	87.2	5
23	22	Berlin,	86.9	9
4	23	West Hartford,	86.5	9
24	24	Windsor Locks,	85.3	14
20	25	Glastonbury,	85.1	7
27	26	Newington,	82.8	0
28	27	Hartford,	80.0	381
25	28	New Britain,	79.2	66
29	29	Enfield,	72.6	78
		NEW HAVEN CO.		
1	1	Bethany,	113.6	12
2	2	Wolcott,	108.5	3
3	3	Woodbridge,	108.2	14
6	4	Oxford,	107.6	13
7	5	Prospect,	102.6	4
4	6	Guilford,	100.2	63
5	7	Madison,	99.0	19
12	8	Southbury,	98.2	17
10	9	Naugatuck,	97.7	10
9	10	North Branford,	97.4	14
15	11	Seymour,	96.2	18
11	12	Branford,	95.9	19
8	13	Wallingford,	95.9	31
17	14	Middlebury,	91.3	6
21	15	East Haven,	90.9	18
14	16	Derby,	89.8	70
13	17	Cheshire,	89.2	13
16	18	Waterbury,	88.0	22
20	19	Orange,	85.7	26
19	20	North Haven,	85.0	30
23	21	New Haven,	83.6	278
22	22	Hamden,	83.5	12
25	23	Milford,	83.2	41
18	24	Beacon Falls,	80.4	0
24	25	Meriden,	75.8	21
		NEW LONDON CO.		
2	1	North Stonington,	112.9	40
3	2	Franklin,	111.4	20
4	3	Ledyard,	111.2	34
5	4	Lebanon,	110.6	33
1	5	Salem,	107.7	18
6	6	Montville,	106.0	53
8	7	Lisbon,	104.1	5
10	8	Preston,	101.4	21
9	9	Colchester,	100.0	45
17	10	Stonington,	97.0	80
7	11	Old Lyme,	96.8	17
13	12	East Lyme,	95.8	18
11	13	Groton,	93.9	11
12	14	Waterford,	93.0	36
15	15	Griswold,	92.7	35
18	16	New London,	92.4	60
14	17	Lyme,	92.2	8
16	18	Bozrah,	88.2	10
19	19	Norwich,	82.5	49
20	20	Sprague,	32.4	20
		FAIRFIELD CO.		
4	1	Sherman,	122.1	27
2	2	New Fairfield,	115.5	9
1	3	Easton,	109.7	10
5	4	Brookfield,	107.6	10
10	5	Bethel,	103.4	10
3	6	Ridgefield,	101.3	9
6	7	Monroe,	100.0	16
8	8	Huntington,	97.8	3
12	9	Stratford,	95.2	4
19	10	Danbury,	94.4	75

1874-75.	1875-76.	TOWNS.	Per cent. in public schools.	Reg'd over 16.
7	11	Newtown,	93.7	35
13	12	New Canaan,	93.2	35
15	13	Norwalk,	88.7	31
16	14	Darien,	87.9	16
17	15	Bridgeport,	87.8	81
14	16	Wilton,	87.4	6
20	17	Fairfield,	86.7	25
11	18	Weston,	83.8	8
18	19	Trumbull,	82.0	10
9	20	Reading,	79.4	12
22	21	Westport,	78.2	30
21	22	Greenwich,	77.3	39
23	23	Stamford,	74.3	62
		WINDHAM CO.		
2	1	Hampton,	117.8	21
3	2	Scotland,	114.3	12
5	3	Chaplin,	111.0	16
8	4	Windham,	108.0	61
1	5	Eastford,	107.1	13
6	6	Canterbury,	107.1	19
4	7	Ashford,	106.4	28
9	8	Woodstock,	104.2	40
7	9	Pomfret,	102.7	14
12	10	Voluntown,	101.5	25
10	11	Sterling,	101.1	12
11	12	Killingly,	85.2	84
14	13	Plainfield,	77.8	31
13	14	Brooklyn,	75.6	41
15	15	Thompson,	69.9	38
16	16	Putnam,	41.4	60
		LITCHFIELD CO.		
1	1	Roxbury,	118.4	20
7	2	Bethlehem,	112.7	6
2	3	Harwinton,	111.7	26
6	4	Warren,	108.1	17
8	5	Colebrook,	107.4	17
17	6	Woodbury,	106.8	15
14	7	Barkhamsted,	105.1	24
4	8	Watertown,	104.6	22
11	9	Goshen,	104.4	14
16	10	Bridgewater,	104.4	11
3	11	Morris,	103.9	10
20	12	Canaan,	102.2	20
13	13	Washington,	99.7	4
5	14	Norfolk,	97.7	12
9	15	Sharon,	97.3	26
10	16	Cornwall,	96.3	23
19	17	Plymouth,	94.8	20
*	18	Thomaston,	94.7	23
22	19	Litchfield,	94.5	34
12	20	Torrington,	94.3	29
15	21	Kent,	94.1	22
21	22	Salisbury,	91.6	21
23	23	North Canaan,	88.0	21
25	24	New Hartford,	87.0	19
18	25	New Milford,	86.3	31
24	26	Winchester,	85.7	14
		MIDDLESEX CO.		
1	1	Clinton,	119.8	50
2	2	Killingworth,	103.9	12
3	3	Westbrook,	103.1	7
4	4	Chester,	99.4	16
11	5	Saybrook,	97.5	9
8	6	Cromwell,	96.5	14
6	7	East Haddam,	94.5	16
10	8	Middlefield,	91.2	5
9	9	Essex,	90.1	4
5	10	Chatham,	89.6	24
12	11	Haddam,	85.3	3
14	12	Durham,	83.7	8
7	13	Portland,	82.9	5
13	14	Middletown,	81.6	122
15	15	Old Saybrook,	68.0	3
		TOLLAND CO.		
3	1	Andover,	114.9	12
2	2	Bolton,	109.4	13
5	3	Willington,	105.9	9
11	4	Somers,	102.0	4
1	5	Hebron,	101.1	17
4	6	Tolland,	101.0	22
9	7	Columbia,	100.5	18
6	8	Mansfield,	98.8	34
7	9	Ellington,	98.6	11
8	10	Coventry,	96.2	39
10	11	Union,	94.9	9
12	12	Vernon,	87.8	42
13	13	Stafford,	78.3	17
		THE COUNTIES.		
2	1	Litchfield,	95.8	501
1	2	Tolland,	92.9	247
4	3	New London,	89.7	583
3	4	Middlesex,	88.0	298
5	5	Fairfield,	87.7	563
7	6	New Haven,	86.5	774
6	7	Hartford,	86.4	973
8	8	Windham,	84.7	515
		The State,	88.10	4,454

* New town, included with Plymouth.

TABLE V.

In which all the Towns in the State are arranged according to their percentage of "average attendance in winter," as compared with their number "registered in winter."

This Table shows the comparative *regularity* of attendance of children in the Public Schools in each town in the State during the winter of 1875–76. It is formed by comparing the numbers in column 9 with those in column 15, in the statistical tables of the several Counties on pages 130–135.

1874-75.	1875-76.	TOWNS.	Per cent.	1874-75.	1875-76.	TOWNS.	Per cent.
4	1	New London,	86.2	20	45	Bethlehem,	77.3
72	2	Milford,	86.0	22	46	Columbia,	77.2
30	3	Saybrook,	83.7	78	47	Farmington,	77.1
2	4	Clinton,	83.4	25	48	East Hartford,	77.1
62	5	Ellington,	83.1	39	49	Montville,	76.8
77	6	Union,	83.0	104	50	Cornwall,	76.7
6	7	Canton,	82.5	80	51	Stonington,	76.4
5	8	Putnam,	82.3	17	52	Enfield,	76.4
15	9	Vernon,	81.9	46	53	Guilford,	76.2
1	10	New Haven,	81.8	82	54	Cromwell,	76 0
7	11	Suffield,	81.7	115	55	Colebrook,	76.0
42	12	Brooklyn,	81.6	69	56	Bristol,	75.9
129	13	Sterling,	81.1	73	57	Griswold,	75.9
53	14	Bloomfield,	80.9	81	58	Tolland,	75.9
10	15	Norwich,	80.7	45	59	Derby,	75.8
102	16	Hebron,	80.6	19	60	Morris,	75.8
31	17	Windham,	80.5	48	61	Thompson,	75.6
126	18	Pomfret	80.2	63	62	Mansfield,	75.5
57	19	Danbury*	80.1	9	63	Marlborough,	75.3
23	20	Killingworth,	80.0	37	64	Windsor,	75.3
98	21	Lisbon,	80.0	33	65	Scotland,	75 3
*	22	Thomaston,	79.9	127	66	Woodbury,	75.2
32	23	Glastonbury,	79.9	103	67	Groton,	75.1
121	24	Harwinton,	79.6	79	68	Newington,	75.0
8	25	Plymouth,	79.5	55	69	Franklin,	75.0
26	26	Ashford,	79.5	59	70	Simsbury,	74.9
67	27	Ledyard,	79.3	38	71	Berlin,	74.9
76	28	Stafford,	79.1	106	72	Plainfield,	74.8
16	29	Hartland,	78.8	18	73	Windsor Locks,	74.6
36	30	Killingly,	78.8	84	74	Southington,	74.5
85	31	East Windsor,	78.7	94	75	Waterbury,	74.4
66	32	Canterbury,	78.6	99	76	Lebanon,	74.4
11	33	Avon,	78.4	71	77	Portland,	74.4
34	34	Hartford,	78.4	134	78	Manchester,	74.3
111	35	Woodstock,	78.4	70	79	Watertown,	74.1
29	36	Colchester,	78.3	112	80	Granby,	74.1
27	37	Hampton,	78.2	107	81	Norfolk,	74.1
74	38	Lyme,	78.1	95	82	Coventry,	74.1
44	39	New Britain,	78 0	135	83	North Branford,	74.0
56	40	East Haddam,	77.9	159	84	Huntington,	73.8
152	41	Andover,	77.8	52	85	Plainville,	73.8
105	42	Seymour,	77.5	123	86	Norwalk,	73.7
21	43	South Windsor,	77.4	35	87	Eastford,	73.7
101	44	Durham,	77.4	153	88	Naugatuck,	73.7

* New town, included in Plymouth.

1874-75.	1875-76.	TOWNS.	Per cent.
165	89	Sprague,	73.6
75	90	Barkhamsted,	73.6
61	91	Torrington,	73.5
110	92	Branford,	73.0
137	93	Old Saybrook,	73.0
49	94	Chatham,	73.0
117	95	Cheshire,	72.9
92	96	Bolton,	72.9
51	97	Bridgeport,	72.7
96	98	Stamford,	72.5
116	99	East Lyme,	72.5
88	100	Chester,	72.4
3	101	Somers,	72.4
149	102	Waterford,	72.3
14	103	Winchester,	72.2
90	104	North Stonington,	72.1
64	105	Preston,	72.0
130	106	Oxford,	72.0
50	107	East Haven,	72.0
146	108	Roxbury,	71.8
147	109	Bethel,	71.7
65	110	Goshen,	71.6
89	111	Hamden,	71.5
118	112	Middlefield,	71.4
40	113	Haddam,	71.2
93	114	West Hartford,	71.0
113	115	Chaplin,	70.8
68	116	Prospect,	70.8
120	117	Essex,	70.8
108	118	New Hartford,	70.7
58	119	Madison,	70.5
12	120	Meriden,	70.4
13	121	Wolcott,	70.4
109	122	Litchfield,	70.2
132	123	Canaan,	70.0
100	124	North Haven,	70.0
125	125	Wallingford,	70.0
91	126	Stratford,	69.5
41	127	Willington,	69.4
24	128	Wethersfield,	69.4
83	129	Rocky Hill,	69.0
128	130	Salem,	69.0
28	131	Westbrook,	69.0
86	132	East Granby,	69.0
144	133	Southbury,	68.9
166	134	Kent,	68 7
54	135	Burlington,	68.7
43	136	Middletown,	68.5
60	137	Middlebury,	68.3
133	138	Brookfield,	68.2
141	139	Newtown,	67.9
47	140	Orange,	67.9
139	141	Beacon Falls,	67.8
124	142	Washington,	67.8
150	143	Voluntown,	67.8
151	144	Bozrah,	67.7
138	145	Darien,	67.5
136	146	Ridgefield,	67.2
114	147	Bridgewater,	67.0
122	148	North Canaan,	67.0
143	149	Wilton,	66.9
145	150	Monroe,	66.8
119	151	Woodbridge,	66.5
161	152	New Milford,	66.4
131	153	Westport,	66.0
163	154	Warren,	65.9
97	155	Old Lyme,	65.7
154	156	Reading,	65.3
148	157	Salisbury,	64 9
162	158	Greenwich,	63.8
140	159	New Fairfield,	63.3
142	160	Fairfield,	63.2
158	161	Trumbull,	63.0
157	162	Easton,	62.4
156	163	Sharon,	61.7
164	164	New Canaan,	60.5
160	165	Sherman,	60.4
87	166	Weston,	58.3
155	167	Bethany,	56.4

		THE COUNTIES.	1874-75.	1875-76.
3	1	Tolland,	74.4	78.2
6	2	Windham,	72.4	78.1
4	3	New London,	73.8	77.6
2	4	Hartford,	75.2	77.0
1	5	New Haven,	77.0	76.5
5	6	Middlesex,	73.6	73.3
7	7	Litchfield,	68.4	71.3
8	8	Fairfield,	67.2	70.5
		The State,	73.10	75.18

In the several Counties the Towns rank as follows:

TABLE V—continued.

The Towns in each County arranged according to their percentage of "average attendance in winter," as compared with their number "registered in winter."

1874-75.	1875-76.	TOWNS.	Per cent.
		HARTFORD CO.	
1	1	Canton,	82.5
2	2	Suffield,	81.7
17	3	Bloomfield,	80.9
11	4	Glastonbury,	79.9
5	5	Hartland,	78.8
25	6	East Windsor,	78.7
4	7	Avon,	78.4
12	8	Hartford,	78.4
15	9	New Britain,	78.0
8	10	South Windsor,	77.4
21	11	Farmington,	77.1
10	12	East Hartford,	77.1
6	13	Enfield,	76.4
20	14	Bristol,	75.9
3	15	Marlborough,	75.3
13	16	Windsor,	75.3
22	17	Newington,	75.0
19	18	Simsbury,	74.9
14	19	Berlin,	74.9
7	20	Windsor Locks,	74.6
24	21	Southington,	74.5
29	22	Manchester,	74.3
28	23	Granby,	74.1
16	24	Plainville,	73.8
27	25	West Hartford,	71.0
9	26	Wethersfield,	69.4
23	27	Rocky Hill,	69.0
26	28	East Granby,	69.0
18	29	Burlington,	68.7
		NEW HAVEN CO.	
11	1	Milford,	86.0
1	2	New Haven,	81.8
15	3	Seymour,	77.5
5	4	Guilford,	76.2
4	5	Derby,	75.8
13	6	Waterbury,	74.4
21	7	North Branford,	74.0
24	8	Naugatuck,	73.7
16	9	Branford,	73.0
17	10	Cheshire,	72.9
20	11	Oxford,	72.0
7	12	East Haven,	72.0
12	13	Hamden,	71.5
10	14	Prospect,	70.8
8	15	Madison,	70.5
2	16	Meriden,	70.4
3	17	Wolcott,	70.4
14	18	South Haven,	70.0
19	19	Wallingford,	70.0
23	20	Southbury,	68.9
9	21	Middlebury,	68.3
6	22	Orange,	67.9
22	23	Beacon Falls,	67.8
18	24	Woodbridge,	66.5
25	25	Bethany,	56.4
		NEW LONDON CO.	
1	1	New London,	86.2
2	2	Norwich,	80.7
13	3	Lisbon,	80.0
7	4	Ledyard,	79.3
3	5	Colchester,	78.3
9	6	Lyme,	78.1
4	7	Montville,	76.8
10	8	Stonington,	76.4
8	9	Griswold,	75.9
15	10	Groton,	75.1
5	11	Franklin,	75.0
14	12	Lebanon,	74.4
20	13	Sprague,	73.6
16	14	East Lyme,	72.5
18	15	Waterford,	72.3
11	16	North Stonington,	72.1
6	17	Preston,	72.0
17	18	Salem,	69.0
19	19	Bozrah,	67.7
12	20	Old Lyme,	65.7
		FAIRFIELD CO.	
2	1	Danbury,	80.1
20	2	Huntington,	73.8
6	3	Norwalk,	73.7
1	4	Bridgeport,	72.7
5	5	Stamford,	72.5
16	6	Bethel,	71.7
4	7	Stratford,	69.5
8	8	Brookfield,	68.2
12	9	Newtown,	67.9
10	10	Darien,	67.5

1874-75.	1875-76.	TOWNS.	Per cent.
9	11	Ridgefield,	67.2
14	12	Wilton,	66.9
15	13	Monroe,	66.8
7	14	Westport,	66.0
17	15	Reading,	65.3
22	16	Greenwich,	63.8
11	17	New Fairfield,	63.3
13	18	Fairfield,	63.2
19	19	Trumbull,	63.0
18	20	Easton,	62.4
23	21	New Canaan,	60.5
21	22	Sherman,	60.4
3	23	Weston,	58.3
		WINDHAM CO.	
1	1	Putnam,	82.3
8	2	Brooklyn,	81.6
15	3	Sterling,	81.1
4	4	Windham,	80.5
14	5	Pomfret,	80.2
2	6	Ashford,	79.5
7	7	Killingly,	78.8
10	8	Canterbury,	78.6
12	9	Woodstock,	78.4
3	10	Hampton,	78.2
9	11	Thompson,	75.6
5	12	Scotland,	75.3
11	13	Plainfield,	74.8
6	14	Eastford,	73.7
13	15	Chaplin,	70.8
16	16	Voluntown,	67.8
		LITCHFIELD CO.	
*	1	Thomaston,	79.9
15	2	Harwinton,	79.6
1	3	Plymouth,	79.5
4	4	Bethlehem,	77.3
9	5	Cornwall,	76.7
14	6	Colebrook,	76.0
3	7	Morris,	75.8
18	8	Woodbury,	75.2
7	9	Watertown,	74.1
10	10	Norfolk,	74.1
8	11	Barkhamsted,	73.6
5	12	Torrington,	73.5
2	13	Winchester,	72.2
20	14	Roxbury,	71.8
6	15	Goshen,	71.6
11	16	New Hartford,	70.7
12	17	Litchfield,	70.2
19	18	Canaan,	70.0
25	19	Kent,	68.7
17	20	Washington,	67.8
13	21	Bridgewater,	67.0
16	22	North Canaan,	67.0
23	23	New Milford,	66.4
24	24	Warren,	65.9
21	25	Salisbury,	64.9
22	26	Sharon,	61.7
		MIDDLESEX CO.	
4	1	Saybrook,	83.7
1	2	Clinton,	83.4
2	3	Killingworth,	80.0
8	4	East Haddam,	77.9
12	5	Durham,	77.4
10	6	Cromwell,	76.0
9	7	Portland,	74.4
15	8	Old Saybrook,	73.0
7	9	Chatham,	73.0
11	10	Chester,	72.4
13	11	Middlefield,	71.4
5	12	Haddam,	71.2
14	13	Essex,	70.8
3	14	Westbrook,	69.0
6	15	Middletown,	68.5
		TOLLAND CO.	
5	1	Ellington,	83.1
8	2	Union,	83.0
2	3	Vernon,	81.9
12	4	Hebron,	80.6
7	5	Stafford,	79.1
13	6	Andover,	77.8
3	7	Columbia,	77.2
9	8	Tolland,	75.9
6	9	Mansfield,	75.5
11	10	Coventry,	74.1
10	11	Bolton,	72.9
1	12	Somers,	72.4
4	13	Willington,	69.4

*** New town included with Plymouth.**

TABLE VI.

In which all the Towns in the State are arranged according to their percentage of "average attendance in winter," as compared with their number "enumerated."

This Table is designed to show what proportion of children in each town were present, on the average, in the Public Schools, during the winter of 1875–76. It is formed by comparing the numbers in column 8 with those in column 15, in the statistical tables of the several Counties, on pages 130–145.

1874-75.	1875-76.	TOWNS.	Per cent.	1874-75.	1875-76.	TOWNS.	Per cent.
1	1	Clinton,	83.1	106	46	Chaplin,	63.1
2	2	Hartland,	81.5	94	47	Colebrook,	63.0
5	3	Hampton,	80.2	62	48	Barkhamsted,	62.9
11	4	Canton,	75.7	39	49	Simsbury,	62.8
8	5	Canterbury,	75.5	77	50	North Branford,	62.8
14	6	Ledyard,	75.5	31	51	Mansfield,	62.7
3	7	Scotland,	74.5	24	52	Watertown,	62.6
4	8	Killingworth,	73.6	66	53	Cromwell,	62.4
98	9	Andover,	72.4	132	54	Sherman,	62.4
15	10	Harwinton,	72.1	83	55	Chester,	62.3
21	11	Bloomfield,	71.2	16	56	Madison,	62.0
19	12	North Stonington,	70.7	72	57	East Hartford,	61.8
40	13	Roxbury,	70.1	102	58	Southington,	61.7
142	14	Sterling,	70.1	100	59	Lyme,	61.6
53	15	South Windsor,	70 0	61	60	Windsor,	61.5
12	16	Ashford,	69.6	23	61	Woodbridge,	61.4
29	17	Hebron,	69.5	70	62	Ridgefield,	61.4
18	18	Woodstock,	69.3	105	63	Danbury,	61.2
37	19	Guilford,	68.7	155	64	Milford,	61.1
17	20	Franklin,	68.2	74	65	Oxford,	61.0
42	21	Saybrook,	68.0	13	66	Wolcott,	60.6
32	22	Bethlehem,	67.5	36	67	East Haddam,	60.4
34	23	Montville,	67.4	79	68	Bridgewater,	60.2
10	24	Avon,	67.3	104	69	Cornwall,	60.2
46	25	Lebanon,	67.2	64	70	Wallingford,	60.2
63	26	{ Union,	66.7	112	71	Farmington,	60.1
33	27	{ Bolton,	66.7	55	72	Prospect,	59.7
69	28	East Windsor,	66.6	59	73	Easton,	59.7
22	29	Tolland,	66.4	75	74	Lisbon,	59.5
9	30	Eastford,	66.4	101	75	Seymour,	59.3
45	31	New London,	66.2	99	76	Stonington,	59.3
108	32	Ellington,	66.1	57	77	Norfolk,	59.2
26	33	Westbrook,	66.0	58	78	Windham,	59.2
41	34	Pomfret,	65.9	125	79	Durham,	58.9
28	35	Suffield,	65.4	43	80	Torrington,	58.3
49	36	Plymouth,	65.3	93	81	Bristol,	58.1
50	37	Preston,	64.8	84	82	Brookfield,	58 1
7	38	Morris,	64.5	139	83	Southbury,	58.0
6	39	Somers,	64.5	143	84	Huntington,	57.9
20	40	Columbia,	64.4	68	85	Portland,	57.9
97	41	Bethel,	63.6	54	86	New Haven,	57.7
51	42	East Granby,	63.6	115	87	Litchfield,	57.6
52	43	Colchester,	63.4	38	88	Plainville,	57.5
71	44	Woodbury,	63.3	80	89	Branford,	57.5
30	45	Salem,	63.3	60	90	Glastonbury,	57.1

1874-75.	1875-76.	TOWNS.	Per cent.
145	91	Naugatuck,	57.1
161	92	Warren,	56.9
91	93	Groton,	56.8
107	94	⟨ Middlefield,	56.7
56	95	⟩ West Hartford,	56.7
90	96	Stratford,	56.7
48	97	Burlington,	56.6
47	98	Willington,	56.5
82	99	Derby,	56.2
44	100	New Fairfield,	56.1
113	101	Washington,	56.1
81	102	Vernon,	56.0
109	103	Monroe,	55.9
65	104	Coventry,	55.8
131	105	Waterford,	55.8
89	106	East Lyme,	55.7
122	107	Granby,	55.6
129	108	Griswold,	55.5
85	109	Bridgeport,	55.4
121	110	Cheshire,	55.4
35	111	Bethany,	55.3
116	112	Newtown,	55.3
95	113	Goshen,	54.8
*	114	Thomaston,	54.8
73	115	Marlborough,	54.5
141	116	Salisbury,	54.5
92	117	Norwich,	54.4
27	118	Rocky Hill,	54.3
104	119	Norwalk,	54.1
25	120	Chatham,	54.1
76	121	Old Lyme,	54.1
114	122	Orange,	54.0
88	123	Middlebury,	53.8
124	124	East Haven,	53.7
110	125	New Britain,	53.7
158	126	Voluntown,	53.5
78	127	Wethersfield,	53.0
138	128	Hartford,	52.4
144	129	North Canaan,	52.2
67	130	Windsor Locks,	52.0
154	131	Kent,	52.0
87	132	Haddam,	51.9
96	133	Berlin,	51.9
147	134	Darien,	51.7
128	135	Killingly,	51.7
130	136	Manchester,	51.5
137	137	Canaan,	51.5
146	138	Wilton,	51.4
119	139	Beacon Falls,	51.0
151	140	New Milford,	50.8
150	141	Brooklyn,	50.3
136	142	Waterbury,	50.3
126	143	Hamden,	50.1
149	144	New Canaan,	49.9
135	145	Middletown,	49.1
111	146	Essex,	48.5
120	147	North Haven,	48.3
133	148	Newington,	47.8
148	149	Fairfield,	47.5
140	150	Sharon,	47.2
134	151	Enfield,	46.7
160	152	Plainfield,	46.1
156	153	New Hartford,	46.0
117	154	Winchester,	45.7
118	155	Stafford,	45.3
152	156	Bozrah,	44.9
123	157	Reading,	43.9
153	158	Trumbull,	43.5
127	159	Meriden,	43.5
163	160	Greenwich,	43.4
164	161	Westport,	43.3
157	162	Stamford,	42.9
159	163	Thompson,	40.0
86	164	Weston,	39.7
162	165	Old Saybrook,	37.0
166	166	Putnam,	27.0
165	167	Sprague,	22.2

		THE COUNTIES.	1874-75.	1875-76.
1	1	Tolland,	54.5	58.0
4	2	New London,	54.8	57.0
5	3	Hartford,	53.3	55.9
2	4	Middlesex,	55.6	55.7
6	5	Litchfield,	52.7	55.6
3	6	New Haven,	55.2	55.2
7	7	Fairfield,	50.0	52.6
8	8	Windham,	48.9	51.6
		The State,	53.29	55.01

* New town, included with Plymouth.

The arrangement of the same figures by Counties appears below.

TABLE VI—continued.

The Towns in each County arranged according to their percentage of "average attendance in winter," as compared with their number "enumerated."

1874-75.	1875-76.	TOWNS.	Per cent.
		HARTFORD CO.	
1	1	Hartland,	81.5
3	2	Canton,	75.7
4	3	Bloomfield,	71.2
11	4	South Windsor,	70.0
2	5	Avon,	67.3
16	6	East Windsor,	66.6
6	7	Suffield,	65.4
10	8	East Granby,	63.6
8	9	Simsbury,	62.8
17	10	East Hartford,	61.8
22	11	Southington,	61.7
14	12	Windsor,	61.5
24	13	Farmington,	60.1
20	14	Bristol,	58.1
7	15	Plainville,	57.5
13	16	Glastonbury,	57.1
12	17	West Hartford,	56.7
9	18	Burlington,	56.6
25	19	Granby,	55.6
18	20	Marlborough,	54.5
5	21	Rocky Hill,	54.3
23	22	New Britain,	53.7
19	23	Wethersfield,	53.0
29	24	Hartford,	52.4
15	25	Windsor Locks,	52.0
21	26	Berlin,	51.9
26	27	Manchester,	51.5
27	28	Newington,	47.8
28	29	Enfield,	46.7
		NEW HAVEN CO.	
5	1	Guilford,	68.7
10	2	North Branford,	62.8
2	3	Madison,	62.0
3	4	Woodbridge,	61.4
25	5	Milford,	61.1
9	6	Oxford,	61.0
1	7	Wolcott,	60.6
8	8	Wallingford,	60.2
7	9	Prospect,	59.7
14	10	Seymour,	59.3
23	11	Southbury,	58.0
6	12	New Haven,	57.7
11	13	Branford,	57.5
24	14	Naugatuck,	57.1
12	15	Derby,	56.2
18	16	Cheshire,	55.4
4	17	Bethany,	55.3
15	18	Orange,	54.0
13	19	Middlebury,	53.8
19	20	East Haven,	53.7
16	21	Beacon Falls,	51.0
22	22	Waterbury,	50.3
20	23	Hamden,	50.1
17	24	North Haven,	48.3
21	25	Meriden,	43.5
		NEW LONDON CO.	
1	1	Ledyard,	75.5
3	2	North Stonington,	70.7
2	3	Franklin,	68.2
5	4	Montville,	67.4
7	5	Lebanon,	67.2
6	6	New London,	66.2
8	7	Preston,	64.8
9	8	Colchester,	63.4
4	9	Salem,	63.3
16	10	Lyme,	61.6
10	11	Lisbon,	59.5
15	12	Stonington,	59.3
13	13	Groton,	56.8
18	14	Waterford,	55.8
12	15	East Lyme,	55.7
17	16	Griswold,	55.5
14	17	Norwich,	54.4
11	18	Old Lyme,	54.1
19	19	Bozrah,	44.9
20	20	Sprague,	22.2
		FAIRFIELD CO.	
8	1	Bethel,	63.6
14	2	Sherman,	62.4
3	3	Ridgefield,	61.4
10	4	Danbury,	61.2
2	5	Easton,	59.7
4	6	Brookfield,	58.1
15	7	Huntington,	57.9
7	8	Stratford,	56.7
1	9	New Fairfield,	56.1
11	10	Monroe,	55.9

1874-75.	1875-76.	TOWNS.	Per cent.
5	11	Bridgeport,	55.4
12	12	Newtown,	55.3
9	13	Norwalk,	54.1
17	14	Darien,	51.7
16	15	Wilton,	51.4
19	16	New Canaan,	49.9
18	17	Fairfield,	47.5
13	18	Reading,	43.9
20	19	Trumbull,	43.5
22	20	Greenwich,	43.4
23	21	Westport,	43.3
21	22	Stamford,	42.9
6	23	Weston,	39.7
		WINDHAM CO.	
2	1	Hampton,	80.2
3	2	Canterbury,	75.5
1	3	Scotland,	74.5
11	4	Sterling,	70.1
5	5	Ashford,	69.6
6	6	Woodstock,	69.3
4	7	Eastford,	66.4
7	8	Pomfret,	65.9
9	9	Chaplin,	63.1
8	10	Windham,	59.2
13	11	Voluntown,	53.5
10	12	Killingly,	51.7
12	13	Brooklyn,	50.3
15	14	Plainfield,	46.1
14	15	Thompson,	40.0
16	16	Putnam,	27.0
		LITCHFIELD CO.	
2	1	Harwinton,	72.1
5	2	Roxbury,	70.1
4	3	Bethlehem,	67.5
7	4	Plymouth,	65.3
1	5	Morris,	64.5
10	6	Woodbury,	63.3
12	7	Colebrook,	63.0
9	8	Barkhamsted,	62.9
3	9	Watertown,	62.6
11	10	Bridgewater,	60.2
14	11	Cornwall,	60.2
8	12	Norfolk,	59.2
6	13	Torrington,	58.3
16	14	Litchfield,	57.6
25	15	Warren,	56.9
15	16	Washington,	56.1
13	17	Goshen,	54.8
*	18	Thomaston,	54.8
20	19	Salisbury,	54.5
21	20	North Canaan,	52.2
23	21	Kent,	52.0
18	22	Canaan,	51.5
22	23	New Milford,	50.8
19	24	Sharon,	47.2
24	25	New Hartford,	46.0
17	26	Winchester,	45.7
		MIDDLESEX CO.	
1	1	Clinton,	83.1
2	2	Killingworth,	73.6
6	3	Saybrook,	68.0
4	4	Westbrook,	66.0
7	5	Cromwell,	62.4
9	6	Chester,	62.3
5	7	East Haddam,	60.4
13	8	Durham,	58.9
8	9	Portland,	57.9
11	10	Middlefield,	56.7
3	11	Chatham,	54·1
10	12	Haddam,	51.9
14	13	Middletown,	49.1
12	14	Essex,	48.5
15	15	Old Saybrook,	37.0
		TOLLAND CO.	
11	1	Andover,	72.4
4	2	Hebron,	69.5
8	3	Bolton,	66.7
6	4	Union,	66.7
3	5	Tolland,	66.4
12	6	Ellington,	66.1
1	7	Somers,	64.5
2	8	Columbia,	64.4
5	9	Mansfield,	62.7
7	10	Willington,	56.5
10	11	Vernon,	56.0
9	12	Coventry,	55.8
13	13	Stafford,	45.3

* New town, included with Plymouth.

Condition of School Houses.

TOWNS.	Good.	Medium.	Poor.	Total.	New.
Hartford,	12	4	0	16	
Avon,	5	1	1	7	1
Berlin,	2	8	0	10	
Bloomfield,	6	3	0	9	
Bristol,	4	7	1	12	
Burlington,	3	5	0	8	
Canton.	5	3	0	8	
East Granby,	1	3	2	6	
East Hartford,	6	2	2	10	
East Windsor,	7	3	1	11	
Enfield,	4	5	7	16	
Farmington,	8	0	1	9	
Glastonbury,	3	12	3	18	
Granby,	5	4	1	10	1
Hartland,	4	2	3	9	
Manchester,	5	4	1	10	
Marlborough,	3	1	0	4	
New Britain,	9	0	1	10	1
Newington,	3	1	1	5	1
Plainville,	1	1	0	2	
Rocky Hill,	1	1	2	4	
Simsbury,	8	2	1	11	
Southington,	5	7	0	12	
South Windsor,	8	1	1	10	
Suffield,	8	2	1	11	1
West Hartford,	3	3	2	8	
Wethersfield,	7	0	0	7	
Windsor,	4	6	0	10	
Windsor Locks,	1	0	0	1	
Total,	141	91	32	264	5
New London,	9	0	0	9	
Norwich,	20	0	0	20	
Bozrah,	5	1	1	7	1
Colchester,	5	8	0	13	
East Lyme,	6	2	1	9	
Franklin,	4	1	2	7	
Griswold,	10	1	3	14	
Groton,	6	5	0	11	
Lebanon,	6	8	2	16	
Ledyard,	10	1	3	14	
Lisbon,	3	0	1	4	
Lyme,	6	1	0	7	
Montville,	7	4	1	12	
North Stonington,	5	8	2	15	
Old Lyme,	0	6	2	8	
Preston,	4	6	2	12	
Salem,	4	2	2	8	1
Sprague,	4	0	0	4	
Stonington,	2	8	9	19	
Waterford,	8	2	1	11	
Total,	124	64	32	220	2

TOWNS.	Good.	Medium.	Poor.	Total.	New.
New Haven,	24	1	1	26	
Beacon Falls,	3	0	0	3	
Bethany,	1	2	1	4	
Branford,	5	0	3	8	
Cheshire,	10	1	1	12	
Derby,	2	5	0	7	
East Haven,	2	3	3	8	
Guilford,	4	10	0	14	
Hamden,	9	4	0	13	
Madison,	8	3	2	13	
Meriden,	9	3	1	13	1
Middlebury,	1	2	3	6	
Milford,	4	2	0	6	1
Naugatuck,	2	4	0	6	1
North Branford,	6	0	1	7	
North Haven,	2	4	2	8	1
Orange,	3	6	0	9	
Oxford,	8	4	0	12	
Prospect,	2	2	1	5	
Seymour,	5	2	1	8	
Southbury,	6	1	2	9	
Wallingford,	9	1	2	12	
Waterbury,	8	8	5	21	
Wolcott,	1	3	2	6	
Woodbridge,	6	0	0	6	2
Total.	140	71	31	242	6
Bridgeport,	11	0	4	15	
Danbury,	8	8	1	17	1
Bethel,	5	3	0	8	
Brookfield,	2	5	1	8	
Darien,	4	0	0	4	
Easton,	7	0	1	8	
Fairfield,	4	1	9	14	1
Greenwich,	9	8	2	19	
Huntington,	10	2	0	12	
Monroe,	5	2	0	7	
New Canaan,	8	2	1	11	
New Fairfield,	1	3	3	7	
Newtown,	13	8	0	21	
Norwalk,	9	2	0	11	
Reading,	6	3	0	9	
Ridgefield,	5	4	5	14	2
Sherman,	2	4	0	6	
Stamford,	10	3	3	16	
Stratford,	3	4	1	8	
Trumbull,	2	3	1	6	
Weston,	5	1	0	6	
Westport,	3	5	2	10	
Wilton,	8	2	0	10	1
Total,	140	73	34	247	5

TOWNS.	Good.	Medium.	Poor.	Total.	New.
Brooklyn,	6	2	1	9	
Ashford,	8	2	0	10	
Canterbury,	4	6	1	11	
Chaplin,	4	1	0	5	
Eastford,	4	4	0	8	
Hampton,	7	0	0	7	
Killingly,	10	4	1	15	1
Plainfield,	2	9	2	13	
Pomfret,	5	3	0	8	
Putnam,	4	2	1	7	
Scotland,	2	3	0	5	
Sterling,	5	3	1	9	
Thompson,	9	1	3	13	
Voluntown,	5	2	2	9	
Windham,	7	3	1	11	
Woodstock,	8	7	2	17	
Total,	90	52	15	157	1
Litchfield,	4	11	5	20	
Barkhamsted,	4	4	3	11	
Bethlehem,	2	5	1	8	
Bridgewater,	4	1	1	6	
Canaan,	5	4	1	10	1
Colebrook,	5	5	0	10	1
Cornwall,	12	2	1	15	
Goshen,	6	2	3	11	
Harwinton,	4	7	1	12	
Kent,	7	5	1	13	
Morris,	3	2	0	5	
New Hartford,	4	5	1	10	
New Milford,	5	9	4	18	1
Norfolk,	0	10	1	11	
North Canaan,	1	4	0	5	
Plymouth,	5	4	0	9	
Roxbury,	4	2	1	7	
Salisbury,	9	1	4	14	
Sharon,	8	6	4	18	
Thomaston,	0	4	0	4	
Torrington,	1	7	2	10	
Warren,	5	0	1	6	1
Washington,	7	5	0	12	1
Watertown,	4	4	1	9	
Winchester,	6	2	0	8	
Woodbury,	5	7	2	14	
Total,	120	118	38	276	5

TOWNS.	Good.	Medium.	Poor.	Total.	New.
Middletown,	7	10	4	21	
Haddam,	6	6	1	13	1
Chatham,	1	8	2	11	
Chester,	4	0	0	4	
Clinton,	1	3	0	4	
Cromwell,	3	3	0	6	
Durham,	4	2	0	6	
East Haddam,	9	6	2	17	
Essex,	4	0	2	6	
Killingworth,	4	4	0	8	
Middlefield,	4	0	0	4	
Old Saybrook,	1	2	1	4	
Portland,	3	3	1	7	
Saybrook,	1	3	1	5	
Westbrook,	7	0	0	7	
Total,	59	50	14	123	1
Tolland,	7	2	2	11	
Andover,	1	3	0	4	
Bolton,	2	1	1	4	
Columbia,	4	3	0	7	
Coventry,	3	5	2	10	
Ellington,	9	0	0	9	
Hebron,	5	3	3	11	1
Mansfield,	11	1	2	14	
Somers,	3	5	1	9	
Stafford,	8	6	3	17	
Union,	1	4	1	6	
Vernon,	11	0	0	11	
Willington,	4	4	1	9	
Total,	69	37	16	122	1

RECAPITULATION.

Hartford County,	141	91	32	264	5
New Haven "	140	71	31	242	6
New London "	124	64	32	220	2
Fairfield "	140	73	34	247	5
Windham "	90	52	15	157	1
Litchfield "	120	118	38	276	5
Middlesex "	59	50	14	123	1
Tolland "	69	37	16	122	1
Total,	883	556	212	1,651	26

THE GRADED SCHOOLS IN THE STATE.

TOWNS.	2 Dep'ts.	3 "	4 "	5 "	6 "	7 "	8 "	9 "	10 "	11 "	12 "	13 "	14 "	19 "	22 "	Whole No. of Grad'd Schools.	Whole No. of Departments.
Hartford,	3	2	--	--	1	1	--	1	--	2	--	--	1	--	2	13	114
Berlin,	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	4
Bloomfield,	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	4
Bristol,	3	1	--	--	--	--	--	--	--	--	--	--	--	--	--	4	9
Canton,	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	1	5
East Hartford,	3	1	--	--	--	--	--	--	--	--	--	--	--	--	--	4	9
East Windsor,	--	1	1	--	--	--	--	--	--	--	--	--	--	--	--	2	7
Enfield,	2	--	--	1	--	1	--	--	--	--	--	--	--	--	--	4	16
Farmington,	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--	2	6
Glastonbury,	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	4
Manchester,	2	--	1	1	--	--	--	--	--	--	--	--	--	--	--	4	13
New Britain,	--	--	2	--	--	1	--	--	--	1	--	--	--	--	--	4	26
Newington,	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	2
Plainville,	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	1	5
Rocky Hill,	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	2
Simsbury,	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	1	3
Southington,	1	1	1	1	--	--	--	--	--	--	--	--	--	--	--	4	14
Suffield,	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3	6
Wethersfield,	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	2
Windsor,	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--	2	6
Windsor Locks,	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	1	7
Totals, 21 Towns,	28	7	7	5	1	4	--	1	--	3	--	--	1	--	2	59	264
New Haven,	3	--	6	--	2	2	1	--	--	--	7	1	--	--	--	22	161
Beacon Falls,	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	2
Branford,	1	--	--	--	1	--	--	--	--	--	--	--	--	--	--	2	8
Cheshire,	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	4
Derby,	--	1	3	1	--	--	--	--	1	--	--	--	--			6	30
East Haven,	2	--	--	--	--	--	--	--	--	--	--	--	--			2	4
Guilford,	--	--	--	1	--	--	--	--	--	--	--	--	--			1	5
Hamden,	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	4
Meriden,	--	--	4	1	1	--	--	--	--	--	1	--	--	--	--	7	39
Milford,	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	1	6
Naugatuck,	--	1	--	--	--	1	--	--	--	--	--	--	--	--	--	2	10
Orange,	1	--	--	--	1	--	--	--	--	--	--	--	--	--	--	2	8
Wallingford,	1	1	1	--	--	--	--	--	--	--	--	--	--	--	--	3	9
Waterbury,	4	1	3	--	--	--	1	--	--	--	--	--	--	--	--	9	31
Totals, 14 Towns,	17	4	17	3	6	3	2	--	1	--	8	1	--	--	--	62	321
New London,	1	--	1	--	1	1	2	--	--	--	--	--	--	--	--	6	35
Norwich,	2	--	6	3	2	--	--	--	--	--	--	--	1	--	--	14	69
Bozrah,	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	2
Colchester,	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--	2	6
Griswold,	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	1	5
Groton,	3	1	1	--	--	--	--	--	--	--	--	--	--	--	--	5	13
Montville,	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	4
Preston,	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	2	5
Sprague,	2	1	--	--	--	--	--	--	--	--	--	--	--	--	--	3	7
Stonington,	1	2	--	2	--	--	--	--	--	--	--	--	--	--	--	5	18
Waterford,	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	2
Totals, 11 Towns,	15	5	9	6	3	1	2	--	--	--	--	--	1	--	--	42	166
Brooklyn,	--	2	--	--	--	--	--	--	--	--	--	--	--	--	--	2	6
Killingly,	3	--	--	--	1	--	--	--	--	--	--	--	--	--	--	4	12
Plainfield,	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	2	5
Putnam,	--	1	--	1	--	--	--	--	--	--	--	--	--	--	--	2	8
Thompson,	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	2	5
Windham,	2	--	--	1	--	--	--	1	--	--	--	--	--	--	--	4	18
Totals, 6 Towns,	7	5	--	2	1	--	--	1	--	--	--	--	--	--	--	16	54

TOWNS.	2 Dep'ts.	3 "	4 "	5 "	6 "	7 "	8 "	9 "	10 "	11 "	12 "	13 "	19 "	Whole No. of Graded Schools.	Whole No. of Departments.
Bridgeport,	5	1	--	1	1	--	--	1	--	1	--	--	1	11	63
Danbury,	2	1	--	--	--	--	1	--	--	--	--	1	--	5	28
Bethel,	--	2	--	--	--	--	--	--	--	--	--	--	--	2	6
Darien,	2	--	--	--	--	--	--	--	--	--	--	--	--	2	4
Fairfield,	2	1	--	--	--	--	--	--	--	--	--	--	--	3	7
Greenwich,	3	--	1	--	--	--	--	--	--	--	--	--	--	4	10
Huntington,	--	1	--	--	--	--	--	--	--	--	--	--	--	1	3
New Canaan,	--	--	1	--	--	--	--	--	--	--	--	--	--	1	4
Norwalk,	2	1	1	--	--	2	--	--	--	--	1	--	--	7	37
Stamford,	1	--	1	1	--	1	--	--	--	--	--	--	--	4	18
Stratford,	1	1	1	--	--	--	--	--	--	--	--	--	--	3	9
Totals, 11 Towns,	18	8	5	2	1	3	1	1	--	1	1	1	1	43	189
Barkhamsted,	1	--	--	--	--	--	--	--	--	--	--	--	--	1	2
Bridgewater,	1	--	--	--	--	--	--	--	--	--	--	--	--	1	2
New Hartford,	2	1	--	--	--	--	--	--	--	--	--	--	--	3	7
New Milford,	--	1	--	--	--	--	--	--	--	--	--	--	--	1	3
Norfolk,	1	--	--	--	--	--	--	--	--	--	--	--	--	1	2
North Canaan,	2	--	--	--	--	--	--	--	--	--	--	--	--	2	4
Plymouth,	1	--	1	--	--	--	--	--	--	--	--	--	--	2	6
Salisbury,	3	--	--	--	--	--	--	--	--	--	--	--	--	3	6
Thomaston,	1	--	--	--	1	--	--	--	--	--	--	--	--	2	8
Torrington,	--	--	--	--	1	--	--	--	--	--	--	--	--	1	6
Watertown,	1	--	--	--	--	--	--	--	--	--	--	--	--	1	2
Winchester,	--	1	--	--	1	--	--	--	--	--	--	--	--	2	9
Totals, 12 Towns,	13	3	1	--	3	--	--	--	--	--	--	--	--	20	57
Middletown,	2	1	--	1	--	--	--	--	--	--	--	1	--	5	25
Haddam,	1	--	--	--	--	--	--	--	--	--	--	--	--	1	2
Chatham,	2	--	--	--	--	--	--	--	--	--	--	--	--	2	4
Chester,	1	--	--	--	--	--	--	--	--	--	--	--	--	1	2
Clinton,	--	--	--	--	--	1	--	--	--	--	--	--	--	1	7
Cromwell,	3	--	--	--	--	--	--	--	--	--	--	--	--	3	6
East Haddam,	2	--	--	--	--	--	--	--	--	--	--	--	--	2	4
Portland,	2	--	--	--	--	--	1	--	--	--	--	--	--	3	12
Totals, 8 Towns,	13	1	--	1	--	1	1	--	--	--	--	1	--	18	62
Tolland,	1	--	--	--	--	--	--	--	--	--	--	--	--	1	2
Coventry,	--	1	--	--	--	--	--	--	--	--	--	--	--	1	3
Somers,	1	--	--	--	--	--	--	--	--	--	--	--	--	1	2
Stafford,	4	--	--	--	--	--	--	--	--	--	--	--	--	4	8
Vernon,	1	--	--	--	1	--	--	--	--	--	1	--	--	3	20
Totals, 5 Towns,	7	1	--	--	1	--	--	--	--	--	1	--	--	10	35

COUNTIES.	Number of Towns.	2 Dep'ts.	3 "	4 "	5 "	6 "	7 "	8 "	9 "	10 "	11 "	12 "	13 "	14 "	19 "	22 "	Whole No. of Graded Schools.	Whole No. of Departments.
Hartford,	21	28	7	7	5	1	4	--	1	--	3	--	--	1	--	2	59	264
New Haven,	14	17	4	17	3	6	3	2	--	1	--	8	1	--	--	--	62	321
New London,	11	15	5	9	6	3	1	2	--	--	--	--	--	1	--	--	42	166
Fairfield,	11	18	8	5	2	1	3	1	1	--	1	1	1	--	1	--	43	189
Windham,	6	7	5	--	2	1	--	--	1	--	--	--	--	--	--	--	16	54
Litchfield,	12	13	3	1	--	3	--	--	--	--	--	--	--	--	--	--	20	57
Middlesex,	8	13	1	--	1	--	1	1	--	--	--	--	1	--	--	--	18	62
Tolland,	5	7	1	--	--	1	--	--	--	--	--	1	--	--	--	--	10	35
Totals,	88	118	34	39	19	16	12	6	3	1	4	10	3	2	1	2	270	1148

A Statement of the Library Orders paid from the State Treasury from April 1st to December 31st, 1876.

N.B.—The "Library Year" will hereafter coincide with the Calendar Year.

TOWNS.	DISTRICTS.	Installments.
Hartford,	Second North,	5th*
"	Arsenal,	7th*
"	West Middle,	12th*
"	North East,	8th*
"	High School,	9th*
Berlin,	No. 7,	8th
Bloomfield,	South Middle,	2d
Bristol,	Nos. 3 & 4 (united)	7th*
"	No. 5,	4th
"	No. 6,	3d
Canton,	Collinsville,	10th*
"	Suffrage,	3d
"	South Centre,	7th
"	Centre,	2d
East Granby,	No. 4,	1st
East Hartford,	Centre (No. 3),	3d*
"	Mill (No. 8),	4th*
East Windsor,	No. 6,	3d
Enfield,	No. 1,	7th
"	No. 10,	5th
"	No. 13,	12th*
Farmington,	Union,	10th*
Glastonbury,	No. 1,	2d
"	No. 5,	2d
"	No. 9,	3d
"	No. 11,	3d
New Britain,	Union,	8th*
Newington,	North,	2d
"	Middle,	2d
"	South,	3d
"	South East,	2d
Simsbury,	Tariffville,	6th*
Southington,	No. 4,	12th*
South Windsor,	No. 1,	14th
Suffield,	North East,	7th
Windsor,	No. 4,	6th
"	No. 9,	4th*

18 towns; 37 districts; 1, 1st installment; 7, 2d; 7, 3d; 3, 4th; 2, 5th; 2, 6th; 5, 7th; 3, 8th; 1, 9th; 2, 10th; 3, 12th; 1, 14th.

TOWNS.	DISTRICTS.	Installments.
New Haven,	City,	14th*
"	Westville,	8th*
Derby,	No. 2,	6th*
"	No. 4,	12th*
"	No. 5,	5th*
"	No. 6,	8th*
East Haven,	Union,	7th*
Madison,	No. 4 (Neck),	17th
Meriden,	Old Road,	2d*
Meriden,	Prattsville,	10th*
North Branford,	No. 4,	3d
North Haven,	No. 4,	2d
"	No. 7,	1st
Orange,	No. 3,	1st
"	Northern,	2d
"	Union,	9th*
"	Western,	3d
Seymour,	Union,	3d*
Waterbury,	Centre,	17th*
Wolcott,	South West,	4th
Woodbridge,	North,	8th
"	North West,	7th
"	Middle,	7th
"	South,	8th
"	South West,	8th
"	North East,	1st

12 towns; 26 districts; 3, 1st installments; 3, 2d; 3, 3d; 1, 4th; 1, 5th; 1, 6th; 3, 7th; 5, 8th; 1, 9th; 1, 10th; 1, 12th; 1, 14th; 2, 17th.

New London,	Union,	14th*
Norwich,	Central,	8th*
"	Town Street,	5th*
"	Yantic,	2d*
Groton,	No. 1,	2d*
"	No. 5,	2d*
N. Stonington,	No. 2,	1st
Sprague,	No. 4,	2d
Stonington,	No. 3,	9th*
"	No. 18,	7th*
Waterford,	No. 3,	2d
"	No. 6,	4th

7 towns; 12 districts; 1, 1st installment; 5, 2d; 1, 4th; 1, 5th; 1, 7th; 1, 8th; 1, 9th; 1, 14th.

Bridgeport,	Union,	6th*
Bethel,	Elmwood,	1st
Fairfield,	Middle,	4th*
"	North,	1st
Greenwich,	Mianus,	5th*
Huntington,	Ferry,	3d*
Norwalk,	Broad River,	1st
"	Union,	4th*
"	Down Town,	6th*
"	So. 5, Mill River	2d
"	Over River,	6th*

(Continued.)

TOWNS.	DISTRICTS.	Installments.
Ridgefied,	No. 6,	3d
"	No. 8,	2d
"	No. 9,	1st
"	No. 14,	1st
Stamford,	Union,	4th*

8 towns; 16 districts; 5, 1st installments; 2, 2d; 2, 3d; 3, 4th; 1, 5th; 3, 6th.

Pomfret,	No. 6,	2d
"	No. 8,	3d
Putnam,	No. 1,	3d
"	No. 2,	1st
"	No. 4,	2d
Sterling,	No. 4,	5th
Windham,	No. 8,	3d
Woodstock,	No. 2,	2d

5 towns; 8 districts; 1, 1st installment; 3, 2d; 3, 3d; 1, 5th.

Litchfield,	Harris Plain,	13th
Bridgewater,	No. 3,	3d
"	No. 4,	1st
"	No. 5,	1st
Goshen,	No. 2,	1st
Morris,	No. 3,	14th
New Milford,	No. 1,	18th*
"	No. 15,	1st
Plymouth,	No. 1,	8th*
"	No. 2,	9th*
Torrington,	No. 2,	2d
"	Wolcottville,	10th*
Torrington,	Torringford, S.,	14th
"	" C.,	14th
"	" N.,	14th
Winchester,	No. 1,	6th*
"	No. 5,	5th
"	No. 7,	2d

8 towns; 18 districts; 4, 1st installments; 2, 2d; 1, 3d; 1, 5th; 1, 6th; 1, 8th; 1, 9th; 1, 10th; 1, 13th; 4, 14th; 1, 18th.

Middletown,	City,	13th*
Chatham,	North West,	4th
Clinton,	Union,	9th*
Cromwell,	High School,	3d
Durham,	North,	2d
Essex,	Union,	3d*
Portland,	No. 2,	9th*
"	No. 3,	8th

7 towns; 8 districts; 1, 2d installment; 2, 3d; 1, 4th; 1, 8th; 2, 9th; 1, 13th.

Tolland,	No. 1,	1st
"	No. 3,	3d
Coventry,	No. 5,	3d
Union,	No. 5,	1st
Vernon,	Rockville, East,	14th*
"	" West,	6th*
"	North West,	1st

4 towns: 7 districts; 3, 1st installments; 2, 3d; 1, 6th; 1, 14th.

SUMMARY.—69 towns; 132 districts; 18, 1st installments; 23, 2d; 20, 3d; 9, 4th; 7, 5th; 8, 6th; 9, 7th; 11, 8th; 6, 9th; 4, 10th; 4, 12th; 2, 13th; 8, 14th; 2, 17th; 1, 18th.

Number of districts (marked *) which received *multiple appropriations*, 54. Amount paid to these districts, $2,295. Whole amount drawn from the State Treasury for 132 districts, $2,775.

Eight towns drew the full amount to which they were entitled, viz: *New Britain*, Newington, New Haven, *Seymour*, Woodbridge, *New London*, *Bridgeport*, *Clinton*. Those in italics drew as Union Districts.

NUMBER AND RESIDENCE OF STUDENTS IN THE COLLEGES AND PROFESSIONAL SCHOOLS OF CONNECTICUT.

STATES.	1 Yale.	2 Trinity.	3 Wesleyan University.	4 TOTAL.	5 Yale Theological.	6 Sheffield.	7 Other Students.	8 Yale Total.	9 Total in ALL Colleges.
Alabama,	2	---	---	2	---	---	---	2	2
Arkansas,	1	---	---	1	---	1	---	2	2
California,	10	1	1	12	---	2	3	15	17
Connecticut,	172	23	42	237	18	66	118	374	439
Delaware,	1	---	2	3	---	---	---	1	3
Florida,	1	---	---	1	---	---	---	1	1
Georgia,	---	2	1	3	---	---	1	1	4
Illinois,	25	---	---	25	10	14	5	54	54
Indiana,	4	---	---	4	---	2	---	6	6
Iowa,	3	2	---	5	3	---	3	9	11
Kansas,	---	---	---	---	1	---	---	1	1
Kentucky,	5	---	1	6	---	2	---	7	8
Louisiana,	2	---	---	2	---	1	1	4	4
Maine,	7	1	15	23	7	2	4	20	36
Maryland,	4	2	3	9	---	---	2	6	11
Massachusetts,	42	8	27	77	12	3	10	67	102
Michigan,	3	2	1	6	2	---	2	7	10
Minnesota,	6	---	---	6	---	---	---	6	6
Missouri,	7	1	---	8	---	2	---	9	10
Nebraska,	---	---	---	---	1	1	---	2	2
Nevada,	1	---	---	1	---	---	---	1	1
New Hampshire,	7	2	---	9	3	---	1	11	13
New Jersey,	24	6	16	46	---	9	1	34	56
New York,	148	24	46	218	10	37	13	208	278
North Carolina,	---	3	---	3	---	---	---	---	3
Ohio,	26	1	---	27	9	9	3	47	48
Oregon,	1	---	---	1	---	---	---	1	1
Pennsylvania,	30	16	17	63	8	9	4	51	84
Rhode Island,	6	2	1	9	---	4	---	10	13
South Carolina,	1	---	1	2	---	---	---	1	2
Tennessee,	---	1	1	2	---	1	3	4	6
Texas,	1	---	---	1	---	---	---	1	1
Vermont,	11	2	7	20	4	2	2	19	28
West Virginia,	---	---	---	---	1	---	---	1	1
Wisconsin,	4	1	---	5	3	2	1	10	11
District of Columbia,	6	---	---	6	---	2	---	8	8
Montana,	1	---	---	1	---	---	---	1	1
Utah,	---	1	---	1	---	---	---	---	1
OTHER COUNTRIES.									
Chili,	2	---	---	2	---	---	---	2	2
China,	2	---	---	2	---	1	---	3	3
Hawaii,	---	---	---	---	1	---	---	1	1
Japan,	2	---	---	2	---	---	1	3	3
Mexico,	---	---	---	---	---	1	---	1	1
Norway,	---	---	---	---	1	---	---	1	1
Ontario,	---	---	1	1	---	---	2	2	3
Peru,	---	---	---	---	---	1	---	1	1
Quebec,	---	---	1	1	---	---	---	---	1
South Africa,	1	---	---	1	---	---	---	1	1
Turkey,	---	---	---	---	1	---	1	2	2
West Indies,	---	---	---	---	---	---	1	1	1
	569	101	184	854	95	174	182	1,020	1,305

SUMMARY.

I. Colleges.	
Yale College, (Academic,)	569
Trinity College,	101
Wesleyan University,	184
Sheffield Scientific School,	174
Total in Colleges,	1,028

II. Theological Seminaries.	
Yale Theological Seminary,	95
Theological Institute of Conn.,	23
Berkeley Divinity School,	28
Total Theological Students,	146

III. Other Professional Schools.	
Yale Law School,	60
Yale Medical School,	35
Total in these Schools,	95

IV. *Graduate, Special and Art Students,	87
Grand Total,	1,356

* Not including those named elsewhere in the Catalogue.

INSTITUTE EXPENSES.

The following is a list of the individual receipts for all moneys paid out on account of Teachers' Institutes. Some of the small bills for telegrams and expressages have been grouped together for the sake of brevity. Formal receipts have been procured for every item of expenditure, however small. As usual, these receipts have been audited and approved by Judge Carpenter, the Auditor of the Board of Education, and deposited with the State Comptroller. As stated in the last Report the amount due me from the State May 1st, 1876, was ..... $ 499.98
Amount drawn from the State, June 1st, ... 500.00

Balance on account, ... .02
Amount drawn June 30, $500, Nov. 20, $500, total, ... 1,000.00

Total amount from the State, ... 1,000.02
As shown below, amt. expended up to Jan. 1st, 1877, .. 1,147.56

Amount due from the State Jan. 1, 1877, ... $ 147.54

Adams Express,	$ .30	Amount brought up,	$236.05
Lewis Carter,	6.00	I. N. Carleton,	35.00
T. A. Thacher,	12.00	C. B. Curtiss,	20.00
Tuttle, Morehouse & Taylor,	87.00	Wm. Whittlesey,	19.00
Adams Express Co.,	.60	J. F. Sloan,	1.75
Wm. T. Hayes,	30.00	Ellis A. Apgar,	115.95
Telegrams from Feb. to June,	10.55	John Hara,	7.50
Adams Express Co.,	.35	L. Evans,	4.25
Jno. G. Baird,	25.00	W. Woodruff,	3.50
Adams Express Co.,	2.75	Henry Upson,	12.00
Tuttle, Morehouse & Taylor,	20.50	S. M. Ensign,	3.00
Chas. H. Yale,	3.00	A. B. Dunham,	5.00
James Garrahan,	3.00	Ellis A. Apgar,	137.85
C. P. Osborn,	35.00	Telegrams from July to Sept.,	9.94
Amount,	$236.05	Amount,	$610.79

Amount brought up,	$610.79
T. A. Conklin,	10.00
R. H. Park,	50.00
Ellis A. Apgar,	51.05
H. W. Blakeslee,	2.01
Lewis Carter,	30.00
W. Robinson,	.50
H. J. Atwater & Co.,	4.15
Adams Express Co.,	.75
S. W. Lindsley,	15.86
Ellis A. Apgar,	97.65
R. A. Breed,	5.00
T. B. Stockwell,	33.00
Samuel Lockwood,	65.55
Telegrams from Sept. to Nov.,	6.01
S. B. Frost,	8.00
I. N. Kingsbury,	.35
Amount,	$990.67

Amount brought up,	$990.67
J. K. Buckley,	10.00
Melville Dewey,	20.17
O. A. Dorman,	2.00
I. N. Carleton,	28.85
I. N. Carleton,	26.05
Adams Express Co.,	1.25
Plimpton Manufacturing Co.,	.50
Expressage,	.70
Telegrams from Nov. to Dec.,	1.60
Melville Dewey,	5.00
H. E. Northrop,	54.00
Wm. Whittlesey,	2 00
J. G. Baird,	2.50
R. G. Russell,	2.00
Telegrams,	.27
Amount,	$1,147.56

NORMAL SCHOOL EXPENSES.

The following is a statement of the payments made by the Board of Education for the Normal School from May 27, 1876, to September 1st, 1876.

Oviatt & Baker,	$ 39.00
Brown & Gross,	17.00
Water Rent,	19.00
I. N. Carleton,	2.25
Paul C. Sinding,	2.75
Kellogg & Bulkeley,	29.90
C. C. Chatfield,	50.00
Adams Express Co.,	.25
L. O. Smith,	362.92
W. L. Cooke,	1.00
N. H. Edgerton,	12.85
Atkins Brothers,	2.00
Adams Express Co.,	.65
Oliver Stanley,	10.00
Oviatt & Baker,	13.00
W. B. Dwight,	6.60
John A. Williams,	18.25
I. N. Carleton,	769.25
W. B. Dwight,	538.48
Ralph G. Hibbard,	128.21
Celeste E. Bush,	256.41
M. Jennie Atwood,	233.33
Emma M. Pease,	120.00
Celestia D. Browning,	156.41
H. G. Arnold,	7.50
Amount,	$2,797.01

Amount brought up,	$2,797.01
Felt & Norton,	1.50
John H. Austin,	17.00
Gas Light Co.,	8.36
W. Gladden,	1.00
I. N. Carleton,	7.16
I. N. Carleton,	2.88
Ginn Brothers,	12.70
Harper & Brothers,	1.80
Harper & Brothers,	3.25
D. Appleton & Co.,	84.00
B. C. Porter,	1.25
I. N. Carleton,	.25
Morgan,	.87
L. M. Wilcox,	2.00
Wm. Upson,	43.19
Austin Brothers,	78.98
Hurd & Houghton,	91.35
Adams Express Co.,	1.65
I. N. Carleton,	13.82
Adams Express Co.,	.70
Harper & Brothers,	75.85
Scribner, Wellford & Armstrong,	109.54
N. H. & H. R. R. Freight,	1.74
Amount,	$3,357.85

May 27, 1876, the vouchers for the school year from September 1st, 1875, to that date, were audited and the account was approved by John S. Dobson and Greene Kendrick, Auditors for Institutions aided by State Appropriations. The amount at that time expended, as stated in last Report in connection with a list of the several bills was $8,722.99
Amount expended from May 27, 1876, to Sept. 1st, ... 3,357.85

Total expended last school year, ... 12,080.84
Cash balance on hand Sept. 1st, 1875, ... 255.45
State Appropriation, ... 12,000.00

Amount for the school year, ... 12,255.45
Total expended, ... 12,080.84

Cash balance on hand Sept. 1, 1876, ... $ 174.61

The following is a list of the bills paid during the present school year from September, 1876, to January 1, 1877.

D. M. Rogers & Co.,	$ 3.50	Amount brought up,	$3,727.07
R. L. Perkins,	55.75	John A. Williams,	14.45
B. C. Porter,	.40	Brown & Ellis,	1.28
Boyle & Magness,	17.78	Wm. Stino,	4.00
Gas Light Co.,	5.32	Adams Express Co.,	.60
Hart, Merriam & Co.,	55.04	John C. Taylor,	5.00
L. O. Smith,	530.72	B. C. Porter,	33.25
Jas. R. Osgood & Co.,	44.50	John C. Taylor,	50.00
Collins & Northend,	59.07	Adams Express Co.,	1.25
I. N. Carleton,	923.00	Ivison, Blakeman, Taylor & Co.,	25 92
Wm. B. Dwight	646.15	Arthur W. Rice,	9 50
Ralph G. Hibbard,	155.84	I. N. Carleton,	307.68
Ella J. Gibbs,	307.50	W. B. Dwight,	3.18
Celestia D. Browning,	307.50	W. B. Dwight,	215.38
M. Jennie Atwood,	307.50	Hall & Harbeson,	37.46
Celeste E. Bush,	307.50		
Amount,	$3,727.07	Amount,	$4,436.02

Amount drawn from the State up to Jan. 1, 1877, ... $3,700.00
Cash balance on hand Sept. 1st, 1876, ... 174.61

Total, ... 3,874.61
Total expended, ... 4,436.02
Amount from State Appropriation, ... 3,874.61

Amount expended above that received, ... $561.41

The following is the certificate of the Auditors:

NEW HAVEN, January 8th, 1877.

We hereby certify that we have examined all the vouchers and accounts of the State Normal School for the period between May 27th, 1876, and January 1st, 1877, and find the same to be satisfactory and correct. Also, that at the last mentioned date, there remained as a balance to the credit of said school the sum of $561.41, and due the Secretary of the Board.

JOHN S. DOBSON,
GREENE KENDRICK, } *Auditors of Institutions receiving State aid.*

EXTRACTS FROM THE REPORTS OF SCHOOL VISITORS.

THE NAMES OF TOWNS ARE ARRANGED ALPHABETICALLY.

[In preparing these extracts for printing, there are occasional changes of words to improve the connection of sentences, also abbreviations or condensations of statements.]

BRISTOL.—Rev. Dr. L. Griggs, Acting Visitor.

Town High School.—In all our districts there are some scholars who wish to pursue branches not usually taught in common schools. These should be accommodated, and not be compelled to go abroad to enjoy such advantages. We ought to have in Bristol one school on a par with a first-class academy. A small tax, that would scarcely be felt, would be sufficient to furnish a building adequate to the wants of a high school, and then its privileges would be enjoyed by all advanced scholars in every part of the town without charge. Thus the expenses of our educational system in Bristol would be diminished, and its advantages greatly increased.

EAST HAVEN.—Rev. E. E. Hall, Secretary of Board of Education.

The schools during the last year have doubtless been as good as in previous years. But they ought to be better than they have been; and the town merely does its duty in raising the standard of the schools year by year; seeking to secure such improvements as will render them efficient, as a means of general instruction, for the children of the community. In all times, among the most enlightened peoples, the education of children has been regarded as a most important element in the formation, progress and government of nations. Our State has acted on this principle in providing, years ago, a large fund for educational purposes, and also in the annual appropriation of money for the same object. Our town asserted the same principle in assuming the control of the schools; which control it has maintained during five years with evident good results. To return to the apathetic ways, the sham economies, the short schools, the annual or semi-annual change of teachers, and all other vexations of the district system, would be going back toward that old order of things, in which the common schools of Connecticut were a by-word and a reproach in neighboring States. The Legislature would do well to protect the

schools from such disaster, by repealing all laws which authorize the existence of districts; making the town in all cases the controlling power, under the State, in the education of children. When the schools are cared for by the town, they are likely to receive a more generous support; to be supplied with better and permanent teachers; and to be furnished more promptly and completely with all necessary appliances for successful operation.

As education is the first necessity of man after the covering of his nakedness and the satisfaction of his hunger, so it is among the first and most urgent duties of the town to minister to this necessity. To no class of people is this necessity peculiar; but it is common to rich and poor; every one has a right to be educated, a right which is as self-evident and sacred as "the right to life, liberty, and the pursuit of happiness." It is the duty therefore of the nation, the State, the town, in their several relations to the whole people, to take charge of this important work, and make ample provision to carry it forward so as to secure the best results.

As a community we ought not to be insensible to the necessity of education to the real welfare of every individual. Our schools should be so generously supported as to contribute directly to the good order, industry and thrift of the town. The tax which good citizens pay for the maintenance of schools is needed for the ever existing warfare against the prejudices, the short-sightedness, the unthriftiness, the vices, and all nameless evils of ignorance,—an enemy which is always hovering about our doors.

Our best interests, so far even as material progress and prosperity are concerned, are imperiled by ignorance; and even by the low grade of intelligence and scanty education with which many children leave the schools. And yet those who are to direct the affairs of the town; the voters, the legislators, the jurymen and all local officers, who are to influence the governing power of the State, are to receive their early impressions and intellectual impulses in our common schools.

It would contribute to the prosperity of our schools, and the success of teachers in their work, if parents and the public would show a decided interest in them. Those teachers whom the Board of Visitors have judged qualified for the work of teaching are entitled to support and sympathy. To take children out of school under the pretence that they are not learning any thing, or that the teacher is not fitted for the place, is in most cases a wrong both to teacher and scholar. The fault is generally with the parent; the home training is defective. We ask for teachers the encouragement and coöperation of parents. When farmers turn their young cattle out to pasture for the season, they take time occasionally to look after their wants and welfare. Parents should not do less for their children. The duty of visiting the schools should be recognized, and its importance appreciated. Such visits do not interrupt the school; but while they serve to break the monotony of the day, they encourage and stimulate the teacher, and incite the interest and diligence of the scholar.

Teachers who have been tried, who have proved their ability to teach by success in their work, should, if possible, be retained. And in the employment of new teachers, the preference should be given, other things being equal, to those who have made the art of teaching a thorough study and preparation. The chief end of our schools should be the development of the mind; the unfolding and strengthening of the thinking power, in distinction from a mechanical memorization of lessons. The best methods of instruction should be understood and applied; such as will put the mind on the stretch; such as will give stimulus and impulse to the intellectual powers. Learning to think should be the business of the pupils; and progress in this direction should be the unwearied aim of the teacher.

ENFIELD.—Dr. E. F. Parsons, Secretary of Board of Visitors.

A growing familiarity with the routine of school management reveals many imperfections in our school system, and almost of necessity many suggestions for improvement arise. We desire to move in directions promising improvement.

High Schools.—We regard with pride the three high schools established by the town three years since. The wisdom of the plan, and its success as an experiment, have been proved beyond question. These schools are an essential part of our school machinery, and are in a very gratifying degree appreciated by our citizens. They are looked up to with respect by the pupils of lower grades, and ambition grows in the minds of the younger boys and girls as they perceive, in their advancing acquirements, the possibility of their entering the doors of the high school at no very distant day.

The objection raised by some that the effect upon the district schools is pernicious, is not well grounded; the evil in question—viz: loss of interest in the district school—arising indirectly from the incomplete system under which we are as yet working.

The schools of lower grade in our villages have done much work worthy of commendation, and in some the proficiency manifested by both teachers and scholars is very gratifying. Two causes very essential appear for this, viz: excellent teachers, and their continuous employment. Our citizens should visit these schools and become by observation aware of the patient, earnest work, and the copious results. Most if not all of these schools will compare favorably with those of the same grade in our neighboring cities.

Teaching has become an art, and there are schools for learning this art. The principles of instruction developed of late years under the Kindergarten system have made a revolution in the education of young children, and every lady assuming to teach, in primary grades at least, should not undertake her work without some acquaintance with that system. One may know arithmetic, and yet not know how to teach it in the shortest possible time,

or even successfully at all. Those who do not know how to teach waste time and effort in proportion to their ignorance. Much effort may be expended, much zeal manifested, but the best results only follow the use of the most intelligent methods. It is not enough that a man or woman clad in the authority of a pedagogue shall rule in a school room, prescribe lessons, and hear recitations from text books. It is not enough that a teacher shall be master, keeping the big boys from making turmoil and confusion, manifesting simply ability to keep human mind in subjection by the fear of corporal punishment. It is not enough that a teacher shall get the good will of the pupils and rule by the power of moral suasion and love. The best teachers are not known simply by their ability to make children love them or delight in attendance upon their school, nor because their children are quiet and well-behaved while going to and from school. While the best teachers may and should possess these excellent qualifications, they do not furnish just criteria by which to judge of the true value of a teacher to scholars in leading them expeditiously up the hill of knowledge.

It is possible to obtain results far different from these for the same outlay of money. We can have all of our children well instructed. What we see of amount and quality of instruction in some of our graded schools, or in the best mixed schools, can be seen in all. We can have our scholars taught the studies belonging to their age, and acquiring by the time they arrive at the age of fourteen, a commendable amount of information in all the fundamental branches of an English education. There need not be such a difference in the acquirements of the pupils of our various schools. We can have excellent time-saving, labor-saving, judicious teachers, who have proved themselves capable of accomplishing much according to the best standards in the school room. Such teachers will infuse into their pupils desires for acquiring knowledge, will foster healthful pride and self-respect in the minds of scholars, will diminish absenteeism in their districts,—for the parents will feel the power of the influence pervading the school room and the community, and proud of their school because it proves something to be proud of, will be eager to secure for their children the advantages within their grasp. The proof of these effects we have seen in our own town wherever our schools have happened to be in the hands of teachers of this character. Such teachers can be retained, when once settled among us, for a series of terms, as easily as now we retain the teachers in the graded schools in our villages. How can such a state of things be brought about? What is the radical change in our system capable of producing such results? The majority of our citizens, even parents of our children, not visiting schools, or only visiting them occasionally, cannot judge of the true character or value of a teacher.

How to secure Good and Permanent Teachers.—The average district committee, rotated yearly in office, is not capable of

judging of the merits of a teacher, nor of the successful working of a school. He could learn, but a certain amount of familiarity with the system of school management and with the science of instruction and the qualifications of teachers, to be gained by a prolonged acquaintance with school affairs, is necessary to enable one to judge discreetly of the fitness of a teacher for the wants of a given school, and much more, to enable him to make a judicious selection for the position. But this is the important step of all. A good teacher makes a good school. To fail here involves a mistake for months, or perhaps, in its influence upon the child, for years. It is a most responsible step, and yet our system entrusts it to one, of necessity, from want of familiarity with the business, largely incompetent.

ESSEX.—Giles Potter and S. M. Pratt, Acting Visitors.

As a means of teaching geography, instruction in map drawing has been given very successfully in three of the schools. We have recommended teachers, if not qualified to instruct in this branch, to qualify themselves, and think it may be well to reject those teachers who are not prepared to teach geography by this improved method. Free hand drawing should be taught in our schools, as it is in many others, not with the view to make the children artists, but as a foundation of that education which will be most useful to them. Drawing is as much an elementary branch of education as reading or writing, and less difficult for young children to learn; and to children who are to be engaged in mechanical pursuits, scarcely less useful than a knowledge of letters. Teachers complain of want of time for these things, and the objection is indeed a serious one when teachers must divide their time among children of all ages and hear twenty or more classes read and recite every day. But free hand drawing can be taught in connection with writing, without taking more time than is usually given to this exercise, and without hindering, but rather promoting the progress of the children in learning to write.

Our public schools have improved during the last six years, and they are better appreciated by parents and children. They should afford ample accommodations for all the children in town except those who have advanced beyond the course of study pursued in them; and they should be good enough for the children of any family. There should be no demand for private schools to teach the branches of any ordinary education, except to those children who are mentally or physically disqualified to attend the public schools with other children. But for those who have advanced beyond the studies pursued in the public schools, public or private schools of a higher grade should be provided.

GREENWICH.—M. L. Mason, Secretary of Board of Visitors.

Irregular Attendance.—In the matter of getting her children into school and keeping them there, this town is behind nearly all in the State, and the very *last but one* in the County. About 77 children were registered out of every one hundred enumerated last year; but the attendance of registered children was very irregular, and this irregularity is one of the greatest drawbacks to the prosperity of the schools. It has been a sad sight and very discouraging to see so many empty seats in the school-rooms. The excessive absenteeism has been commented upon in previous reports; and the Acting Visitors would forbear to further press the subject upon the attention of the town, were it not a matter of such vast importance to the community. If education is general, thorough, and substantial, its effect will be recognized, generally, in the good order and high character of the people. Where the schools are neglected and the school-books despised, immorality, rowdyism, and crime are almost certain to prevail.

In accounting for the non-attendance of our children at school, almost unparalleled as it is in the State, some considerable allowance must be made for circumstances. Greenwich is a large town, and in several localities sparsely settled. In many instances the people live a long distance from the school-house; the highways are lonely and none of the best; and it is only in pleasant weather that the children, especially the younger ones, can conveniently and properly get out to school. But after making this allowance, it still seems unnecessary that the percentage of attendance should be almost the lowest in the whole State. It is hard to resist the conclusion that the trouble, in a great degree, grows out of the indifference of parents, very few of whom ever set their feet in the school-room.

HARTFORD.—Dr. E. K. Hunt, Acting Visitor.

There can be no doubt, that a hearty and intelligent interest is felt throughout this community, in the subject of education. It is conclusively shown, both in the character and cost of our school structures, which has been cheerfully borne, and by the superior ability of our teachers, which is secured at a high, but not excessive price.

But how is it, in regard to the supervision and watchful care of these nurseries of learning by parents and the friends of education? Do they exercise a suitable watch over them, by frequent visits and enquiries, noticing the methods pursued in imparting instruction, the general management of teachers, and the use of that practical and discriminating common sense, which has always much to do with the well being of every child? It is not necessary nor desirable to wait for some public occasion, some exhibition-day, when everything is made ready for display by special preparation and prolonged drill. Much better is it to appear when both teacher and scholar are engaged in their every day

work, and wearing their every day aspect. Broad and safe conclusions may then be drawn, and a correct judgment formed as to methods and results. Such visits, however, should not be infrequent; the interests involved are too sacred and wide-reaching.

The course of study for our schools is so arranged that in all the departments by far the larger part of the time of the pupils is given to the studies which constitute the ground work of fundamental branches of an education, so that, however much or little time the child attends school, and whenever he may stop in his course, all that he has acquired will be of practical and daily service to him throughout life. The time devoted to music and drawing is generally very small, while the progress in these branches, as compared with what we should expect under the circumstances, is quite surprising. To none of the subjects taught do the children apply themselves with more assiduity or greater success; and when it is remembered how much benefit may be derived from a knowledge of them by the pupils in after life, they will be considered among the most useful branches taught.

The High School.—This department of our system of instruction still maintains its deservedly high reputation, and as a consequence continues to increase in numbers and usefulness. Its course of study is wisely adapted to the wants of its pupils, and its management by an able and experienced corps of instructors meets the approval of all who are interested in its welfare.

The plan of admission to this school from the public schools, by an annual examination, has been pursued from its opening to the present time, and has proved entirely satisfactory to a large proportion of its patrons and friends. To lower essentially the standard of admission, or to render the examinations themselves less thorough than they now are, would at once open its doors to many new comers, and at the same time, and to the same extent, reduce its standing, in fact, as well as in public estimation, and soon bring it to about the level of the Public or District Schools. This would be equivalent to extending the common school course, without enlarging its scope or widening the range of its subjects. On the other hand, to render the terms of admission increasingly onerous and exacting would deprive a considerable number who now enter of the enjoyment of its privileges, and of the opportunity for extending the sphere of their acquisitions and increasing their mental culture, which it was the purpose of the Town to afford, when it established the school.

To relieve the mortification and disappointment of those who fail of admission at the annual examination, and also to give the diffident, who may unfortunately lose their self-possession at this critical time, and hence fail of their purpose, it has been suggested by some that all be received from the district schools who are endorsed as qualified by the Principal of the school of which they are members, and their fitness tested by a probation, say of three months, at the end of which time only, shall they be admitted to

membership. But this arrangement, if open to no other objection, would require at the outset accommodations for a considerable number in excess of those who now enter, and while an occasional one would be found qualified who might have failed on the existing plan of examination through bashfulness, or want of confidence, or some like cause at the usual examination, a large proportion would probably drop at the end of the probationary period, experiencing no less mortification and disappointment than they now do, while casting the burden of their dissatisfaction, with its accompanying yet groundless unpopularity, wholly upon the High School. Besides, in all such cases, the question of another and second attempt to gain admission is forever set at rest, inasmuch as the unsuccessful applicant will not then, as he now often does, return again to the public school, to spend further time in preparation with reference to another attempt.

Finally, it will be allowed, that the deficiencies of those who are unprepared will necessarily, if they be admitted, retard the progress of the classes with which they be connected, and tend to lessen the ambition, weaken the spirit of emulation, and lower the standard of recitation; thereby proving a stumbling block to those with whom they are associated, while receiving no compensating advantage themselves.

In short, what can be more reasonable and fair, and what should be more satisfactory, both to the pupil and his friends, than to submit his qualifications in an independent and manly way, to the test of a properly conducted examination, made for his own good, and simply to establish his fitness, or otherwise, to enter advantageously upon a higher course of study? Especially should this be regarded as satisfactory, when it is remembered that those who conduct the examination are both candid and competent judges, and their sympathies wholly with him while passing the ordeal; and also, that it is impossible, even for the judges themselves, to know who are or who are not admitted, until the examination is closed and the marks are compared and footed. This, it would seem, should remove all ground for the charge of favoritism on the one hand, or unfairness on the other, and compel the conclusion, on the part of every unsuccessful candidate, that he has misjudged his qualifications, and cannot be fitted for the position to which he aspires, and therefore ought not to enter.

The change which we have been considering is radical in its character, and should it, at some future day, be adopted, it would, we fear, prove to be a process rather of leveling down than one calculated to elevate the scholarship and enlarge the acquirements of the pupils, or to improve the public estimate of the school. Admission would no longer be sought as the goal of a laudable ambition, as it has hitherto been; but being virtually open to all, it would cease to be that powerful and conservative agency in our education system, by which every teacher and every child is now impressed, and which operates to elevate and increase both the standard and amount of acquirement in all our public schools.

In regard to this, as to many other practical matters, it is safe to apply the trite but true maxim, "Let well enough alone."

MIDDLETOWN.—City District, Dr. George W. Burke, Secretary of Board of Education.

Early Efforts for Public Education in Middletown.—This town was settled in 1650, and received its present name in 1653; but the records of its doings for many years thereafter became so broken, that a copy was ordered to be made by a special committee, who expended much care in its preparation. It is evident, however, that this copy contains only the principal acts or votes of the town, so far as they could be gathered from the original.

One of the earliest records in reference to education in this town, and which relates especially to the origin of our present "Donation Fund," is found in the Probate Records in Hartford, and is from the will of the Rev. Samuel Stow, at some time a preacher residing in Middletown, and who died in the year 1704. Among his bequests was the following:

"Item: as to a parcell of land at the Streights Hill containing seven hundred twenty-four acres and a half, more or less, being an hundred and fifty-three rods in bredth and two miles and a half long,—cutting on highway west, and on undivided land east,—on Thomas Wetmore's land south, and Mr. Giles Hamlin's land north: I give all this to my sonn and heir Samuell Stow, the sonn of my sonn John Stow, advising him with the advise of his Father or some of his friends to give an hundred acres to some publick good of the Town at one of the corners of it in a square dimention."

The whole of this land was appraised at only thirty-six pounds sterling,—seven hundred and twenty-four acres for less than two hundred dollars! It is understood that this gift for the public good became the nucleus of our present donation fund, to which was added in 1734 the estate given by Jasper Clemens.

The income from the rental of the lands and money which constituted the Donation Fund belonged to the First School Society of Middletown. In process of time the available assets of this fund were collected, and invested in twenty-four shares of the Middlesex County National Bank, in which form it has remained for many years, the dividends being yearly distributed among the several school districts, according to their enumeration of children of legal school age.

The earliest town record of any action embodying this principle of providing what may be termed an endowment for public schools, appears under date of February, 4, 1694, when at a town meeting it was

"*Voted:* That if in any time coming there shall be made any lands by way of Island upon or in the great river within the bounds of this township, that all such lands shall be improved for the benefit and encouragement of the publick school of this town."

Our forefathers had a jealous and careful spirit with regard to the proper use of the funds raised for school purposes, showing in many of their votes passed in town meeting, that the money should not be diverted from its primary object,—for example:

"Jan. 14, 1696, "The town voted that their neighbours on the north side of the fery shall have the benefit of their part of half the yeares scool rate for the future, provided it be improved for the benefit of schoaling their children."

This same spirit is manifest in the first thoroughly organized effort which was made under the direction of a committee appointed for that purpose, in March, 1711, who presented a plan or system for managing the town school in Middletown.

Henry E. Sawyer, Superintendent.

With what degree of punctuality and regularity children shall attend school depends mainly on home influences. Look over the names of those scholars whose attendance is perfectly satisfactory —who are never absent nor late except for good and sufficient reasons. From what families do they come? Not exclusively from the rich or from the poor, from those who live near the schools, or from those more remote from them, but from those in which steady and faithful attention to the business in hand whether it be work or study, is insisted on.

A vast majority of the marks for absence and tardiness stand against comparatively few names. A teacher soon learns to expect that certain scholars will be absent whenever there is the slightest temptation. And this number, like that of those whose attendance may be depended on, is not determined by locality or by condition in life, but by the value which is set on educational privileges, and by the character of the forces which control the home.

A glance at the "Roll of Honor" will confirm these statements. Certain families are apt to be represented there year after year. Some whose names stand on it are among the youngest, and some among the oldest, pupils. Some are obliged to fill the intervals of school with labor, and some are under no such necessity. Some can walk from home to school in a few seconds, and others have to spend hours on the way. Of the fourteen neither absent nor late during the year, one traveled about ten miles daily, another twenty, and another more than fifty, walking nearly two and a half miles each morning and night, and making his school day twelve hours long.

These facts show that regularity of attendance comes from care and determination, and is not to any great extent dependent on circumstances, except as it may be prevented by sickness.

Truancy and Vagrancy.—Truancy appears to be increasing a little. This and the often resultant evil of vagrancy cannot be adequately dealt with by the ordinary appliances of school discipline. Nor can home authority be depended on for their cure, for

vagrancy or frequent truancy implies that home authority is wanting, weak, or misdirected.

For the removal of these evils legal measures must be resorted to, and should be used firmly and steadily. The occasional arrest of a truant by the police, or the commitment, once or twice in a year, of a truant or vagrant to the Industrial School or the Reform School would be a salutary example, and would do much to check the downward career of some who are inclined to go astray, and to put them, or keep them, on the track to respectability and usefulness. A vagrant boy or girl, idling or playing in the streets or fields, does not at first sight appear to be a subject of much interest or concern to society. But the lapse of a few years will put the destinies of the nation and of the world, so far as they are controlled by living men, into the hands of those who are now under the age of twenty years. Surely, then, these ought to be in some course of preparation for assuming the responsibilities which are coming.

Progress.—The regulations and course of study in force at the beginning of the year were adopted in 1865. Since that time, in consequence of the policy of improving the schools which has been so steadily adhered to by the Board, many changes have taken place in their character, and these changes have rendered necessary a revision of the rules, and especially of the gradation and course of study.

At the date above named, the school-houses and rooms, with the single exception of the one on South Main street, were in a condition far from satisfactory. They were not properly warmed nor ventilated. The furniture was mostly unsuitable, while that which was originally good had been badly defaced.

In the schools themselves there was no definitely prescribed course of study, nor systematic division or arrangement of the work among the different grades. The senior department contained about sixty pupils, only a small number of whom would have been able to pass such an examination as candidates for the upper class in the junior department now pass. The eight or ten good scholars furnished a class in rhetoric, one fairly advanced in algebra, a small class in French, and one of beginners in Latin. The other pupils were in classes in reading, spelling, writing, arithmetic, geography, and grammar, taking some or all of these studies pretty much according to their own choice, and many of them were less advanced in these fundamental branches than some scholars in the third class in the junior department are now. The school had no philosophical or chemical apparatus; there was no instruction in music or in drawing, and exercises in composition and declamation had come to be so regarded that pupils seriously questioned the right to require them, and sometimes rather stubbornly resisted the requisition.

But all these things have passed away. We have comfortable school-houses, suitably furnished and carefully kept. In them and their surroundings and appurtenances there is little to remind one

of the condition of things in the spring of 1865. And the contrast between the schools then and now is even greater than that in buildings, grounds, and furniture. This difference appears not merely in the senior department with its hundred and fifty pupils, very many of whom are in age and in manners young ladies and gentlemen, with its classes in various sciences, in four languages, training in the commercial course for active business, and in all stages of preparation for college, with its illustrative lectures and excursions, its culture in music, drawing, elocution, and composition, and its nine classes of graduates, increasing from four in 1868 to twenty-five the present year; but as much in the character and value of the work in all the grades, so that it may be boldly affirmed that, in the essential matters of reading, spelling, writing, and arithmetic, the pupils in the primary and junior departments are better than were those of the same age in the schools at the time mentioned, notwithstanding the fact that important branches have been introduced, to which no time or attention was then devoted.

It has also come to be much better understood that good order will be maintained, and therefore prompt and cheerful obedience is much more generally rendered, and there are fewer occasions for disagreeable trials of strength, whether of muscle or of will between teachers and pupils.

As one result of the adoption of improved methods, and of a more careful division of subjects and arrangement of labor among different grades, it has been found that the work laid out in the former course of study for thirteen years can be well done in twelve, and in the revision the time has been shortened accordingly. Something has been gained in simplicity of arrangement, by reducing the number of departments to three, primary, junior, and senior, and assigning four grades to each department.

"Activity is a law of childhood." Children learn by doing things rather than by studying books. Recognizing these well-established principles, in revising the course of study an attempt is made, in accordance with the philosophy of education as at present understood, to introduce, especially in the younger classes, more of oral instruction by means of objects and in methods which utilize the restless activities and gratify the eager curiosity of children. One advantage incidental to this will be a decrease in the number of text-books required, and so some saving of expense to parents. This, however, will be but a trifle compared with the good which will result from having children taught in methods more natural than heretofore. The number and size of the text-books used in many of the branches is an evil. They were made, in the first place, to supplement the deficiencies of teachers imperfectly qualified. It was soon found that there was profit in their manufacture, and so it was directly for the pecuniary interest of authors and publishers to make them as large and as numerous as possible. In some of the educational exhibits of foreign countries in the Centennial Exposition, nothing was more striking than the

small size and apparent cheapness of some of the text-books, while their apparatus and means of illustration were abundant, ingenious, and elaborate. It will be a good day for education in our country when the demand shall become imperative for cheaper school books and better teaching.

C. L. Loomis, Acting Visitor.

Through the many years which have passed since the schools of this city were graded, the policy has been steady to make them as good as the best. The results achieved mark the wisdom of the plan so uniformly pursued. The general state of discipline and scholarship is commendable. Every year has its definite work, well laid out, and the toiling crowds on the lower steps of the ladder of learning are cheered in their tasks by the hope of gaining the rewards which they see their predecessors reaching at the top.

Better teaching insures greater yearly gain, and the higher standard demands better teachers. The faithful teacher gains in resources for imparting instruction, and this increasing mental equipment adds to the value of the service rendered. Does the free school undertake too much? The knowledge of the mere rudiments of learning must be conceded to be of the first importance. More is wanted. Many can never attend any other institution of learning. The welfare of the generation which must soon bear the burdens of civil life is best secured by a high grade of scholarship attainable by all. The college reaches but a few. The common school is for all. The average scholar of the future must cope with people of far more learning than their fathers could acquire in their day. Money, time, the highest culture, is well bestowed on all the children in the State. They constitute the State that is soon to be. The pillars of the coming Commonwealth should be wisely polished before their setting. The higher branches cost: the higher branches "pay." And since the mind is more than business, and character more than wealth, they are entitled to the precepts of gentle manners and Christian morals. In the development of these graces of the soul, the teachers find their highest joy. No better plan offers, which can meet the wants of the near future, than to keep up with the spirit of the age—advance, as opportunity allows, and bear forward a high standard of learning in the district school.

Some changes in the course of study seem desirable. Those who are preparing for the university will be benefited by still more thorough equipment. The new studies which meet the novice there may well be reconnoitred before they are attacked. The influence of this classical course is excellent in showing how study is pursued when a lofty end is in view.

The demands for rapid writing, especially in business, commend, to pupils in the commercial course, at least, instruction in writing "short-hand"—a relief from great labor with the pen, and an invaluable aid to any writer. The general interest in the weather

reports points to the value of a few weeks devoted to the study of Meteorology. Some lessons may well be given on the domain of law, the rights and duties of the citizen whose responsibilities are to be assumed so soon after leaving school.

Our school is in want of text-books in which are stated the main facts in concise terms, requiring no long and diffuse rules to be learned, with no prospect of ever using them. The simplest statements, with no repetitions, ensure the greatest gain. Memorizing exceptions, and variations in the methods of doing the same work, encumbers with a burden of little use. How long must children be required to learn things only to avoid and forget them? "Of making many books there is no end."

Our series of Arithmetics discourages the learner with meanderings over the same ground, while a wilderness blocks up his prospect of ever finding the end. We want a standard Arithmetic, complete in one small volume; a Grammar, whose concise rules may be learned, and which will comprehend principles that explain the use of our native language in its purity. We want a Geography with the main features of the world in bold relief—the important facts, without all the ideas the writer could add to make the book heavy. We are in distress for want of a Speller, stored with the words most frequently used, leaving uncommon words for search in the dictionary. Cannot some one give us an outline of History, like the frame of an edifice, on which the learner may, in after years, hang the added knowledge of minutiæ, as the drapery? We must work in disadvantage till some one will make books the rather for the instruction of the scholar than for the interests of the book-trade. The works on penmanship and book-keeping are well made, and these branches are taught to eminent satisfaction.

Free-hand Drawing has hardly had time to reach its proper grade of perfection. They who have witnessed its influence in cultivating the power of observation, and in the skillful handling of the pen, as well as of the crayon, in the general improvement of taste, and the ability it has given to delineate, rapidly, ideas and forms not readily understood without its aid, cannot contemplate its neglect without sorrow. Near it stands music, both well deserving a good place in the school. The daily routine of toil is relieved by its refreshing sweetness. The movement of numbers at once is aided by the regular rhythm of music. But it goes further, and adds to the enjoyment of a life-time. Commit these studies to the teachers in charge of the room, and some must fail. The copy to be imitated is not in every room. To make these branches attractive needs a special teacher, whose devotion to the special work enables him to use the best means to secure uniformity in practice, and to enlist the enthusiasm of the pupil in acquiring proficiency in the art. Continue the system, as in the past years, a little longer, and this community would have many capable teachers of drawing. Proceed without a teacher, and the

higher classes can have little aid, and the loss of the year cannot be made good.

The evening school failed to meet the expectations of the Board, though doing excellent work for those who attended it. Workingmen, slipping in between the hours of labor, cannot be as regular attendants as the day-school expects. Still it is desirable that instruction should be provided for the busy workers, who have only candle-light for study. Good policy, in city and in State, would provide an evening school for the unlearned in the city, and also, under proper regulations, for those whose residence is outside the city limits, but whose days are here spent in labor, or in idleness, and who, for want of culture, seek amusement here in the evenings, where ignorance exposes to evil manners, whose results the city government must garner into the stone-house at great expense. The night-school is the cheapest means of encouraging a better manhood among hard-worked citizens.

Our Commonwealth proposes an education for all her children. She cannot afford to rear them in ignorance. Much has been done to adapt the course of study to the wants of the people. In the graded schools, especially, pupils easily pass from one school to another, as business interests change their residence. Pupils from schools whose studies do not conform to the usual course, entering these, often find themselves classed with smaller children, because unlearned in the branches required for admission to a higher grade. The State accepts the work there done, in lieu of attendance at the public school. Plainly, then, *these private institutions should be subject to visitation and approval by officers of the State.*

Beyond the reach of all instruction is a class which haunts the docks and depots, and other public places, by day, spending the evenings where they learn nothing good. The general condition of these street-boys is deplorable. The vices of bad men are their lessons—soon learned. Many parents make heroic exertions, in poverty, to keep their children in school. Some of these favored lads cannot be kept in school. It is a part of the proper work of the Board to take account of every child of school age, and to take means to bring them to some school, according to the law. This body can easily obtain an account of the whereabouts of every child in the city district during every month of the school year. This work must meet the approval of every good citizen, and be a great resource of good influence in the families where these waifs belong.

NEW BRITAIN.—Charles Northend, Acting Visitor.

Too young children in School.—If children could be properly cared for at home, their true good, as well as that of the schools, would be best promoted if school days should commence at the age of six years rather than four as now. Those children who remain out of school until the age of six, or even seven, will, on the average, be farther advanced at the age of twelve years than

those who commence their school life at four or five years of age, and if all home influences and surroundings were what they should be, we would strongly protest against sending children to school under six years of age. Indeed we do protest against it as being an injury to the little ones and to our schools. During the year 1875 there were in our schools 635 under six years of age, and 294 under the age of five. Children sent thus early, and confined to the dull routine of school life, often acquire an unconquerable dislike of school before they are old enough in any degree to realize the object for which they are sent to school. It seems almost cruel to take a little child thus young, who is naturally full of play, and as inclined to be in constant motion as a bird or bee, and confine him for five or more hours daily to the seats of a school room. But so long as many parents need the relief which school affords, the sessions of our primary schools should be brief, and the lessons and exercises as varied and interesting as possible.

Teachers.--In the work of instruction the true aim of the teacher should be to awaken thoughts in the mind of the pupil and inspire him with a desire to learn, and teach him how to learn, and then aid and encourage him to express his thoughts and ideas clearly and accurately, but not to do any part of the reciting for him. One lesson, thoroughly learned and intelligently recited by the pupil is better than a score of lessons partially learned and jointly recited by teacher and pupil. In how many instances a pupil says, "I know but I cannot think or tell." Such should be made to feel that they do not, in any proper sense, know unless they can communicate their knowledge to others. A person may know all things and have his mind filled with the contents of books, and yet if he has not the faculty for imparting of his abundant knowledge, he is, so far as usefulness to the community is concerned, no better than a veritable ignoramus. As a light under a bushel is of no practical use, so knowledge unimparted is of no real benefit to the world. Teachers should cultivate in pupils the power of expression, so that they may be able to give clear and practical evidence of the knowledge they possess. To this end a few minutes should be occasionally given to a sort of language or talking exercise, in which pupils shall be required to give a clear and concise statement of some fact or knowledge which may be familiar to them. Train them to talk.

In the matter of discipline, it would be strange indeed if in the management of nearly 2500 pupils, from nearly a thousand different homes, and so from a thousand different influences, there should not be occasional cases of complaint, but such instances are very rare. Invariably is it true that those teachers who talk the most and the loudest are the poorest disciplinarians. The "fire alarm," used in our city, would soon cease to command attention if its tones were constantly sounding. So, too, the teacher's voice will soon become unheeded if constantly heard. The best disciplinarians are those who govern without seeming to

govern. The teacher's wishes and requirements are clearly understood and cheerfully complied with. She has the confidence and affection of her pupils to such an extent that it is their pleasure to comply with all known regulations. To know her will is to obey, and obedience is prompt, cheerful and complete. Under such a teacher there is no eye service, but a ready and perfect acquiescence in all known wishes. Her pupils love and respect her, and her influence is constantly with them, in school and out, inciting them to right feeling, right action and right expression. There is perfect harmony between teacher and pupil,—the former ever manifesting a kindly, friendly and helpful spirit, the latter ever delighting to know and do her will. The pupils of such a teacher will, through all subsequent life, recur to their school days as among the brightest and happiest they have known.

Then there are other teachers who control by the stern "terrors of the law." They secure a sort of forced obedience which can be maintained only while the pressure is on. The obedience is a sort of eye-service submission to the exactions of law. With no sympathy for youth and the spirit of childhood, all requirements and regulations are of a dictatorial style, and every movement and action of pupils is measured by a spirit of rigid exaction. The pupils of such teachers will submit as subjects of a tyrant submit to one whom they would gladly dethrone. There is no spirit of love or sympathy, and school days of such pupils will be full of bitterness, and will never in after life be recalled with any degree of complacency. But it should not be forgotten that our teachers have heavy burdens to bear, and if they sometimes err they should not be judged harshly. It is no easy matter to govern and instruct a school of 50 or 60 pupils, assembled from a great variety of home influences, and to bring all into harmonious action; and the marvel is that our teachers have done so well. Their work is arduous and patience-trying in the extreme, and as a class, they are unsurpassed for general fidelity and success by any other class of laborers. And if, *without* the aid, sympathy and coöperation of parents, they have done so much and so well, how much more and better might they accomplish if favored with the ready, constant and cheerful coöperation and support of the parents for whose children they are toiling.

Parental Coöperation.—What our schools now need more than aught else is the full sympathy and support of parents. These are rendered by some, but not by the majority. If a boy enters a shop or a store he is expected, as a matter of course, to be at his post seasonably and constantly, and how many parents there are in our city who rise early and work hard that their children may be seasonably ready for their work. No thought is for a moment entertained that the youth can be absent two or three days monthly. Why should not the same feeling and practice prevail in relation to school life? Why are so many vacant seats to be found daily in our schools? Simply because many parents put less value upon school duties than they do upon other matters

of far less intrinsic importance. It can hardly be expected that children will manifest an interest in excess of that shown by their parents or guardians.

Parents should cultivate the acquaintance of the teacher of their children. Teachers and parents are engaged in a common work, and may be, and should be, mutually helpful, and yet parents send their children to school term after term to a teacher to whom they have never spoken a word. It ought not to be so, and parents ought to call at the school room and seek the acquaintance of their teacher. Let her see and feel that they are deeply interested in her work and her own interest will, almost as a matter of course, be increased. But these visits to the schools will do more than benefit the teacher: they will encourage and stimulate the pupils and tend to the real good of all concerned. During the last year many parents have visited the schools, but such visits are less frequent than they should be. Every parent should endeavor to visit the school which their children attend as often as once each term.

Corrupt Books and Papers.—There is one particular danger to which the attention of parents and all concerned in the education of youth should be earnestly called, and that lies in the character of the books and periodicals which they read. The community is almost deluged with books and pamphlets whose contents are the merest trash, if not the vilest matter. A boy who spends hours daily in the perusal of some dime novel will lose all relish for study and school duties, and his mind by day will be occupied by some overwrought or foolish story, and by night be filled with dreams of the most damaging nature. An improper book will do much to unsettle the mind of a boy, or fill it with false notions and foolish imaginings whose pernicious influences cannot be counteracted by the best of teachers. A pupil's dislike of school and its exercises often has its foundation in the perusal of some of the light literature of the day, and frequently a teacher is blamed for want of interest and progress on the part of pupils when the true cause may be traced to the books they have read stealthily or by permission. I have detected boys, whose lessons were poorly prepared, in reading or having in their possession some miserable dime novel or periodical which was filled with sensation stories and abounded in slang words and phrases. And, moreover, it is a lamentable fact that there are agencies at work in circulating among our youth books of the vilest and most corrupting nature, and such agencies have existed in our own town. If parents and guardians could be made familiar with what is known to Anthony Comstock in his most laudable endeavors to suppress the circulation of immoral literature, they would not only be astounded, but they would be led to "watch and pray" that their children might be kept from the contaminating influences of these vile books and the viler persons who circulate them. The perusal of one vicious pamphlet will leave upon the tender mind of childhood a taint and stain

which no after effort can fully remove. We would beseech parents to consider this subject and to know the character of the reading which is placed before their children. Many a parent who is watchful and duly cautious as to his son's associates never stops to consider that a bad book is a worse companion, if possible, than a bad boy.

Evenings.—In the last report the attention of parents was called to the manner in which their children spent their evenings. Home should be made so attractive that youth will have no desire to spend the hours of evening elsewhere. Let them be well supplied with approved and pleasant games and entertaining books, and they will be kept from those street influences which have resulted in the ruin of so many of the young. The formation of many bad habits, as well as the use of improper language, might be traced to the influences emanating from groups of boys brought together in the hours of darkness. The young need entertainment and amusement, but for their good these should be furnished, so far as possible, at their homes.

Truancy.—Some of our schools have been troubled from this evil. In some instances boys have been absent several days in succession, and on their return to school attempted to impose upon the teacher by presenting a forged excuse. A few such have been detected, and it is hoped reformed. One truant boy in a school will be guilty of immense mischief, and every possible influence and agency should be employed to check this evil. In many cases the reading of pernicious books and stories has tended to promote truancy. Most of our teachers have too many pupils under their charge. With the best system of gradation no teacher should have more than 50, yet in many of our rooms the average number to each teacher has exceeded 60. As soon as practicable the standard of number per teacher should be fixed at 50, and with this limitation teachers should be held to a more rigid account in the matter of attendance of pupils, and so accomplish more in the prevention of truancy. If a pupil is absent and the teacher knows not the cause, let the fact be communicated to the parents. When pupils learn that a constant communication and understanding exists between their parents and teachers they will seldom venture to play the truant. But so long as our teachers are overburdened with pupils it will be impossible for them to exert that individual influence and oversight so essential to the best good of pupils.

Moral Training.—No system of education is what it should be unless provision is made for the cultivation of the moral faculties. Not that set hours and lessons should be devoted to this subject, but teachers should improve every occurring opportunity for awakening proper feeling on the part of pupils as to right and wrong. Let a daily effort be made to promote a spirit of kindness, courtesy, charity, order and neatness. Let a constant effort be made to create a dislike of improper or angry words, rough or boisterous actions. Let true politeness and a regard for the

rights and claims of others be duly and constantly encouraged, and every effort be made to lead to a spirit of manliness and civility, not only in the school room, but also on the play ground and in the streets. The teacher is never doing a nobler work than when seeking to elevate the standard of moral feeling and action on the part of her pupils. The teacher's true work is to train up towards a perfect manhood and womanhood the youth committed to her care, and can she desire or find a nobler work? When we consider that every boy well educated, morally as well as intellectually, will become a power for good in the community, and that every boy allowed to grow up in ignorance, and so, as a matter of course, in idleness and vice, will probably become a curse to the community, with what importance does it invest the work of parents and teachers. And let it never be forgotten that not only do *words* fitly spoken by the instructors and guardians prove as "apples of gold in pictures of silver," but that *actions* are often more potent than words for good or ill. Let us remember that what we are in our general bearing and manner exerts a silent but sure and lasting influence.

NEW HAVEN.—City District, Ariel Parish, Superintendent.

Statistics.—The enumeration of January, 1876, revealed a decrease of three hundred and fifty children of legal school age, since January, 1875, but notwithstanding this diminution, the average number of pupils in daily attendance was greater by one hundred and twelve, than during the previous year. For the purpose of ascertaining the actual number of children in the public schools at the time the census was taken, a record was made of the number on the register, members of the schools, during the third week of January, 1876. It was found that of those not registered that week, 36 per cent. were under 6 years of age, and 24 per cent. were over 14 years old. Full 75 per cent. of the children between 5 and 14 years of age were in attendance during the third week in January last. But at that time many children had been withdrawn from school on account of prevailing diseases, so that some rooms had remaining not more than one-third their usual number. Nor does the computation include children in private schools.

Drawing, has made good progress during the year and is in a very satisfactory condition. Several quarto volumes were made from the work of pupils and forwarded to the Centennial Exposition at Philadelphia. Specimens of work done under the instruction of the teachers were sent, to show what is done in the daily lessons in school; also, another class of specimens entitled "*Home Work*," because these were done *out of school, without the aid of the teacher.* The designs were invented or selected from objects by the pupils, entirely from their own resources, and the drawing was done without aid, in order to test their attainments and capability. This exercise is required of all the pupils several times during the year, and specimens of their work are forwarded to the office, for the inspection of the Board. The drawings of the High

School, sent to Philadelphia, of which one specimen was required from each pupil, were of the two kinds, daily work and home work; but, instead of being "flat copy," were representations of objects, made directly from the objects themselves, or given in perspective.

If there is any one feature in which our pupils excel, it is in what is known as "*free hand drawing.*" From the beginning, in the primary room, the *eye* and the *hand* are the only guides, the *pencil* the only instrument. The ruler and the measure are strictly prohibited. If more clear cut lines can be obtained by the straight edge of the ruler, or a more perfect form of a curve can be made with an instrument, or a more complete imitation of a copy can be obtained with the use of tissue paper, the results are not evidence of valuable acquisition which will enable the artist to exhibit the highest style of art. Even to the common mechanic, the ability to use the eye and hand with freedom and accuracy is invaluable. The advantage which most of the children will find of great utility even in the common walks of life, hereafter, will be this acquisition of a *new language*, as it were, which will enable them to make intelligent representations beyond the power of written or spoken language to express.

Language.—A right step has been taken for the improvement of the pupils in the knowledge and use of the English language. True, the step is a short one; but it is in the right direction, and can be lengthened.

Map drawing, which was for a long time confined almost solely to a single school, is now generally practiced in all the Grammar Schools. For instruction in *topical* geography, map drawing must be chiefly employed. The map, as existing in the mind of the pupil and portrayed by him on the blackboard or on paper, must be made the receptacle of all geographical knowledge. Facts and general information floating in the mind will be fugitive and evanescent until fastened by association to something permanent. Hence the value of fixedness of localities, lines of direction, relative distances, areas, &c., in the mind of the learner, with which an association can be formed. Rapid and accurate forms are sought for, rather than exhibitions of artistic skill requiring a useless expenditure of time. Decided progress is expected in this department during the coming year.

Music.—At the great Centennial celebration on the 4th of July, 1876, a vast concourse of people, comprising our own citizens and multitudes from abroad, had an opportunity to witness a performance well calculated to test the efficiency of vocal instruction in our schools. *Twenty-eight hundred* pupils were selected, at the request of the Mayor and Court of Common Council of the city, to give a public musical performance, in connection with the general celebration of the day. Under the direction of the Principals of the High and Grammar Schools, from which the selection of pupils was made, aided by their teachers, this large company was marshaled and conducted to the south side of the "lower

green," where elevated seats had been erected for their accommodation. Thirteen popular airs, representing the original States, were sung. Both the excellent conduct of the pupils while assembling, and their singing, called forth enthusiastic commendations from the multitudes assembled to hear them.

In the management of the schools, gradual amelioration of discipline is perceptible. The number of teachers who have gone through the year without inflicting corporal punishment is larger than in any former year. They are teachers who regard prevention better than the cure of an evil; who have a happy faculty of *leading* children into willing obedience and a cheerful performance of duty. While we cannot but desire that the number of these should be largely increased, it must be admitted that there is sometimes occasion for the summary treatment of reckless transgressors. The transfer of incorrigibly insubordinate pupils to the truant schools is a great relief in our school government, and takes away excuse for frequent application of corporal punishment.

The cultivation of the *manners* of the children has, for some years, been made a special duty of teachers, and the influence on the conduct of the children is noticeable. Those who can compare the behavior of boys on the street eight or ten years ago, with what is witnessed now, will perceive a marked difference, even in those sections of the city where the rudest boys are found. The reflex influence of the schools is felt in the homes of the children. Mothers of the humblest class are ambitious to send their children to school tidily dressed, as other children are; and learn through the children many things, from school associations, that exercise an elevating influence, and make the home happier.

NORTH BRANFORD.—Rev. E. L. Clark, Acting Visitor.

Drawing.—The most noticeable feature of the school in district No. 3 during the year has been the remarkable proficiency of the pupils in drawing—both map and object drawing. This branch of instruction, was successfully introduced in the last term of the previous year, and succeeding teachers have carried it forward with a high degree of skill. An enthusiastic interest was awakened in it and continued till the close of the year, by which time the skill in using the pencil which had been acquired by many of the pupils, some of them very young, was such as to fill the patrons of the school with pleasure and surprise. This interest in drawing it is hoped will be kept up in this school. A little competent instruction and continued practice would enable many of these pupils, in no long time, to draw not only maps, but all common objects, with correctness and good taste.

These experiments show very clearly with what ease and success, and at how little cost, drawing may be added to the accomplishments of our children. How useful this education of the hand and the eye must prove to every one is very manifest. Why should not both drawing and music be made regular

branches of instruction in all our common schools? In the schools of the cities and larger towns of the State music is now taught scientifically, systematically, and with the happiest results. There are young children in some of our own schools, who, after attending for a few months the public schools of New Haven, have come back to us able to read simple music readily at sight. This instruction in music is no great, or difficult, or costly thing. It only needs the employment of a competent instructor an hour a week in each school, and if there were a demand for such a teacher, he would soon be raised up in almost any community. At a trifling cost, the elements of music could be taught in all the public schools of this town, and in no long time this will be done.

PLYMOUTH.—L. D. Baldwin, Acting Visitor.

Parental Interest.—In one of our Schools containing some bad specimens of heedless and disrespectful pupils, a gentleman offered a small reward to the boy in whom the greatest improvement in deportment should be manifest during the remainder of the term. The change for the better in that school was soon very manifest, and was attributed by the teacher to that offer alone. Now if such a change in the manners and deportment of pupils can be made by appealing to their love of money, how much more could be expected if parents and friends would appeal to those higher and nobler principles which ought to govern men, and which exist in some degree in the heart of every child. If the best results are to be attained in our schools, parents must give more personal attention to this matter.

Some may excuse themselves by pleading their pressing business engagements. But what business success can compensate for the lack of proper interest in the welfare of one's own children? Duty, in this matter, does not end with making a liberal appropriation of money, and appointing a judicious person to expend it. If, at the end of the year the amount of savings is less by the value of two or three half day's work; or if, at the end of life one's earthly possessions are smaller by a few acres, in consequence of attention to this obvious parental duty, by what rule of mathematics can it be counted a loss? Competent, faithful teachers can accomplish much in giving proper direction to the aspirations of the young, but the Father of all has given to every parent an influence which no other can acquire; and the responsibility resting on parents cannot be ignored, nor transferred to other hands, without obvious detriment to the welfare of the young in the formative period of their lives.

Historical.—As early as 1737, provision was made by the town of Waterbury (which then included Plymouth,) for sustaining school for "the up-river people," six weeks of the year. Limited as was this school term, yet comparing their means with ours, that provision was highly creditable to those pioneers, and doubtless required more self-sacrifice than the liberal expenditure and

increased length of terms of the schools of to-day. Meagre as were their opportunities, yet from the number of distinguished men sent out from this and other Connecticut towns, we are forced to believe that they improved the means at their command in a manner which the pupils of to-day may wisely imitate.

THOMASTON.—Rev. J. W. Backus, Acting Visitor.

Consolidation.—At the annual town meeting in 1875, it was voted, almost unanimously, to consolidate the districts of the town into one. For convenience of reference the old districts still bear district names, but all their affairs are administered by the town school board. A local agent in each district, answering to the former district committee, is appointed by the Board to attend to such incidental wants of the school as are more likely to be noticed by a near resident. A year's experiment with consolidation abundantly vindicates the wisdom of the step. As soon as practicable after organizing, the Board gave its careful attention to the matter of *grading the schools.* This was the logical necessity resulting from consolidation. But this was found to be a work of more difficulty than was anticipated. The first thing to be done was to fix upon some standard of attainment which the scholar should be required to reach, as a condition of entering the high school. But this could not be done without ascertaining what kind of scholarship already prevailed in the schools, especially in the department next below the high school. This investigation soon made it evident that there was a great amount of very superficial study. Scholars who had been through the arithmetic were unable to explain some of its simplest processes. This was not wholly the fault of the teachers, but mainly of the system, or rather want of system. Scholars had been in the habit of going from one department to another very much as the fancy took them; the higher studies got into the lower departments; the teacher wanted to teach whatever the scholar wanted to learn. The result was, scarcely anything was taught well. In this state of things, as a first step toward grading, the Board, after much consultation, agreed upon certain requirements that should be indispensable to entering the high school, and removed from the lower department every other study. For *that* department, next below the high school, a definite course of study has been marked out. The attention of the school is wholly confined to that course. When that is thoroughly mastered, and the requisite examination is passed, the scholar enters the high school. Beyond this it has been found impracticable, thus far, to grade according to proficiency in study. No definite course, as yet, has been marked out for the high school, though a careful supervision is exercised in regard to the branches taught there. The departments below the second have no definite course of study, but every scholar is directed as to the department he shall take. This work of grading will be carried on till a regular course of study shall be

arranged for the whole, and each of the lower departments shall be strictly preparatory to the one above it.

The Advantages of Grading, although, as yet, but imperfectly realized, are nevertheless altogether surprising. The department that sends pupils directly into the high school, and which at present most feels the influence of the grading system, shows a wonderful improvement. The teacher has no more than she can do, and do well. The pupils know just what they have to do. They know they are striving for entrance into the high school within a given time. Never before has such a spirit of study prevailed there. This is one of the immediate and palpable fruits of grading. No teacher, however excellent, could have accomplished the past year, without grading, what has been easily and pleasantly done with it.

Another advantage of it is that, under consolidation, it embraces all the pupils of the town. Many promising and ambitious scholars in the remoter parts of the town could not expect to find in their own district schools, made up of all ages, and mostly of young children, the advantages which their increasing years and attainments require. But under the present system the more advanced pupils of all the remoter districts are brought into one school, graded to their requirements, and, on the principle of division of labor, the effectiveness of one teacher is many times multiplied. Thus the town is able to educate its own youth. At present all the remoter districts are actually represented in the high school, which is now so constituted, as regards the age, attainments, and numbers of the pupils, as to fulfill every condition of a first-class school. No pains should be spared to complete the work of grading as soon as it can be intelligently done, by prescribing a regular course of study in each department, and thus bringing the whole into perfect unity. Let there be a careful examination, conducted at the discretion of the Board, as pupils pass from one department to the other, and a certificate of graduation with honors be awarded when the high school course is completed. This is not too much to aim at, even if it cannot be fully realized at present. It is true no such plan, nor indeed any other, can be realized on paper. It must be realized gradually. Minor improvements, developed one after another, will lead to it. Every step gained should be held, and made vantage ground for a fresh start. No town has better material for model schools. It will be the town's fault if it does not have them.

A Great Evil.—The whole number of scholars registered for the year is 496, the average attendance is only 288. Not quite 60 per cent., or three-fifths of the registered number, are in actual regular attendance. That is, over 40 per cent., or two-fifths of the number, are habitually absent. Such an amount of absence is of itself almost enough to paralyze any school. The absentee for one day loses what his class gains that day, and in trying to keep with his class the next day is at great disadvantage himself, and this hinders the whole class. Think then of 208 absentees in a

year out of 496, many of them several days at a time, and who can compute the loss in study, both to themselves and the regular attendants? But this is not the whole loss. The habit is a demoralizing one every way. It destroys the sense of responsibility in the scholar, it impairs his power of application when he is in school, it depresses the school sentiment, and cultivates the feeling that school is of little consequence. It makes much of the teacher's work a useless drudgery, and virtually throws away a large part of the school money. The parent thinks *he* cannot afford himself to lose a day's wages. He ought to remember that his child can no better afford to lose a day's schooling. But this is not the whole loss. This habit of absence is a direct and powerful encouragement to the crime of

Truancy.—When so many are absent for trifling reasons, with the consent of parents, there will always be more or less tempted by it to be absent without consent. And there are now several habitual truants connected with our schools—boys who are absent without consent of any one, roaming in the streets at will, and hanging round places of public resort. You may always set down such as pupils in vice. They get the habit of lawlessness and grow up with it. They corrupt others by their influence, and are the very boys who become the dangerous class in community, setting at defiance all law and order. There should be an immediate and thorough enforcement of the State laws against truancy, even to the extent, if need be, of sending the truant forthwith to the Reform School, and probably nothing short of this can abate the evil and preserve the moral order and tone of our schools. It should not be forgotten that the moral welfare of the town is as much endangered by the habit of school-boy truancy as that of the schools. But the one influential *cause* of it cannot be too seriously considered, viz: the habit of absence, even with parental consent, for trifling reasons. Parents cannot too seriously feel the importance of exercising the utmost care to have their children regularly and punctually at school *through all the school hours of the day.*

But while this evil of absence has seriously interfered with all efforts for the improvement of schools the past year, yet the progress that has been made shows what could be done with that evil corrected; and so immeasurably augments the motive for correcting it. The public schools must be regarded as the supreme interest that falls to the care of the town. The opening of our town history should be signalized by their greatest possible improvement. It is as easy for this town to have good schools as poor, if we accept the laws and conditions of good schools. No pains should be spared to procure the best teachers that can be had, at any reasonable price, and to furnish promptly all necessary school conveniences. And to turn even these advantages to the best account, there should be the most careful supervision of the schools, extending even to a minute inspection of their every-day transactions. There is an imperative call for an increase of this

work of supervision. What has been done the past year shows much more that ought to be done in the same line. The economy that would get along with cheap schools is a most ruinous waste. No town interest is so valuable as its youth. Their education is the best investment the town can make, and its highest honor.

WEST HARTFORD.—W. H. Hall, Secretary of Board of Visitors.

More than usual interest has been manifested in the schools by committees and parents the past year, and this has had a good effect in stimulating teachers and scholars, so that steady progress has been made throughout the year. There is encouragement also to hope for still greater progress in the future. Our schools need, most of all, the impetus which the manifestation of a lively public interest in them, would impart. The greatest obstacle to their prosperity at the present time is the indifference of a great majority of the citizens in regard to educational matters. No doubt all good citizens acknowledge that schools sustain an important relation to the welfare and prosperity of the community. But while all favor the maintenance of the public schools, the majority of our citizens make no effort to improve their condition, and increase their usefulness. This appears in the manner in which educational matters are attended to in our annual town meetings. Hardly enough interest is manifested to pass in a respectable manner the necessary votes. There is usually no lack of enthusiasm on the subject of roads, taxes and various public improvements; but when educational matters are broached, no more enthusiasm is manifested than would attend the appointment of a hayward or pound keeper.

So, too, in the annual district meetings. There all the important details in regard to the management of the several schools for the year receive attention, and yet so few have any interest in these meetings that it is often found necessary to go out and call in enough to make a respectable gathering. The only thing that will insure a full attendance at a regular school district meeting is a proposition to build a new school house, or make repairs on the old one. This is so sure to call out the voters that the device of inserting such a proposition in the warning has sometimes been resorted to when a full attendance was desired.

Again, if citizens generally were interested in the condition of our schools, they would take some pains to inform themselves in regard to them, either by personal visits or by inquiry, and would desire thus, or in some way, to encourage the teacher and scholars in their work. Both teachers and scholars know, better than many suppose, how much the public are interested in them and their work, and their faithfulness and success depend to a considerable degree upon the attitude of the public toward them. If we desire our schools to flourish, we must attend the district meetings, and use our influence there to secure efficient officers, and the best teachers, and to make liberal provision for all the wants of the

schools. Let us also occasionally visit the school, if only for a few moments, and take pains to show the teacher and children that we are interested in them and in the work which they are doing. The teacher will thank us for it, and be encouraged by it; the children will respect us more and will feel a greater desire to do their best, and the school will be helped forward more than in almost any other way. It will be a natural thing for parents who have children in the schools to do this on account of their regard for their own children; but it is desirable that all citizens, including those who have no children of their own to educate, should do this also. The remark is often made, "I have no interest in the school, for I have no children of my own to send." Those who speak in this wise should remember that it is a matter of great importance to them that their neighbors' children be educated. No citizen can afford to have children growing up about him in ignorance, or even without the best advantages that it is possible to provide. The man who takes no interest in the schools of his own district or town, because members of his own family do not attend them, would be benefited by residing, for a time at least, in an uncivilized community, where schools are not maintained. If our schools are of any value at all, they are worthy of the best support we can give them, and demand nothing less of every citizen.

At what age should a child first attend school?—Too many parents send their children to school before they are old enough to receive much benefit from attending. A child will not ordinarily be benefited by attending school much before he is seven or eight years of age. Beginning at that age, with the ability to understand the object for which he is sent, his progress will be much more rapid than if he began at four or five years of age.

Most young children are sent to school to get them out of the way at home, and have them cared for by the teacher during the day. A short time ago one of our teachers had twelve young children to care for, only one or two of whom knew their letters, and this in a school numbering over fifty scholars. It is shameful to require a teacher, in addition to the care and instruction of a large school, to perform the duties of mother and nurse also. The child will learn the alphabet and begin study at home to much better advantage than in the school room; and his physical development and well being will certainly be promoted in a far greater degree in the freedom of his own home than under the restraint and confinement of school.

Union of districts advocated.—In previous reports a change from the district system to the so-called union plan has been advocated. This change is desirable because it would probably tend to increase public interest in this direction. That has been the result in towns where the change has been made. Again, there is no doubt that our schools would become more stable, and make greater progress than is possible under the present system, which in its very nature necessitates frequent changes. Every change involves loss of time at least, and often a great deal more.

While the new teacher is becoming acquainted with the scholars and learning the status of each one by degrees, the old teacher would be leading them on to higher attainments in a course of uninterrupted progress. If the old teacher is a poor one, it is best to change and get a better one. But the change is as often from good to bad, as from poor to good. The committee who accepts the position simply because it is his turn to serve, and he cannot well avoid it, will not be likely to take very great pains to secure the best teachers.

Another advantage of the union plan would be that greater uniformity would be secured throughout the town, and one child would have as good advantages as another. At the present time, the town may make liberal provision for the support of the schools, but some district by its action in regard to the management of the school, or by its neglect, may deprive the children residing within its limits of the full advantage of this provision, while the children in another district receive full benefit from it.

The district system is a modern device. The early fathers knew nothing of it. They held the public school in high esteem, and provided for it among the first things. The following votes, copied from the earliest records extant, show how the fathers of our own community made provision for the schools, in the days when the ecclesiastical society had charge of educational affairs, and the school was next to the church in importance:

December 8, 1736. *Voted*, "That three schools be kept this year, six months by a master or masters and three months by a dame or dames, and that they be set up and ordered by the committee proper for this year."

Voted, "A rate of two pence upon the pound upon the list of this Society, to be collected and paid in to the committee, to be by them improved towards the support of the schools and other necessary charges."

Voted, "That the money coming to the Society as their part of the Ferry shall be by the committee improved towards the support of the school."

In all New England communities, at that period, schools were managed in a similar manner. Hon. Horace Mann, formerly Secretary of the Board of Education in Massachusetts, said in regard to the first introduction of the district system in that State: "I consider the law of 1789, authorizing towns to divide themselves into districts, the most unfortunate law on the subject of common schools ever enacted in the State." His opinion is sustained by his successors in office, Hon. Barnas Sears, Hon. Geo. S. Boutwell, and Hon. Joseph White, the successive Secretaries of the Board in Massachusetts. The latter, referring to the action of the Legislature by which, at a later day, the district system was abolished, says: "Thus, by one wise and beneficent act, was removed from our school system that which had long been regarded by the great body of intelligent observers and laborers in the work of education, as more than all things else standing in the pathway of progress."

The district system is doomed. Leading educators in all parts of the country condemn it; in our own State many towns are abandoning it with satisfactory results, and it is to be hoped that we shall soon be among the number.

WESTPORT.—Dr. GEO. B. BOUTON, Secretary of Board of Visitors.

Additional legislation is needed to cover the following points.

First. The school year begins on the first day of September, while the meeting of the joint board of school visitors and selectmen to make the appropriations for the schools is not held till October, so that the district committees are obliged to employ teachers at a time when they cannot know how much money will be placed at their disposal. The time for the meeting of the joint board should therefore be changed from October to July.

Second. The school visitors who draw orders on the selectmen for the money to be paid for the support of the schools, and the selectmen who pay the money, have no official knowledge as to who the district officers are. There ought to be a law making it the duty of the school district clerks to lodge with the town clerks, of their respective towns, within five days after the annual school district meetings have been held, a certified list of the names of all the district officers elected at such meetings, with the additional certificate that such meetings were lawful meetings, and that such officers were elected in the manner prescribed by law. Furthermore, in order that district committees and school visitors, may have ample time for performing their respective duties, the law should be so changed as to require all annual meetings of school districts and consolidated or union districts to be held in the month of July in each year.

WINDHAM.—E. B. SUMNER and E. M. SWIFT, Acting Visitors.

The District System.—The suggestions in the report of last year are renewed with still firmer convictions that the district system is useless for any good purpose and should be abolished, and that the town should constitute a single school district as is provided by the statute in such cases. A school district, in the language of the supreme court, is "a corporation not only limited in its powers but also of precarious existence." It is in most respects the agent of the town: if it fails to comply with the law the town supplies all omissions of duty. The compensation of teachers and all bills for the support of schools to the extent of thirty weeks in each year are paid by the town, and yet the most important act connected with the school, the selection of the teachers, is intrusted to a committee chosen by the district. Sometimes the district becomes the scene of contention and strife; the annual meetings for the choice of committees and other officers are conducted like political caucuses of the lowest order, where the champions of some proposed teacher or incumbent

annually rally their respective forces to elect a committee pledged in advance to hire their favorite without regard to the fitness of the teacher or the wishes of the patrons of the school. In this manner a teacher obnoxious to those most interested in the school may be permanently saddled upon a district; or on the other hand, a meritorious teacher may, on account of prejudice or spite, in the same manner be displaced. The interests involved are too important to be decided by scrambles of this character.

High School.—A fair estimate of the number of inhabitants of the town would be perhaps seven thousand, with every prospect of a gradual increase; in addition to this there is a large population in the surrounding towns who would avail themselves of any first class educational advantages that might be offered. It is therefore seasonable to ask whether the time has not arrived when the establishment of a High School, free for the whole town, should be seriously considered. The attempt to mingle a High School with the common school is not consistent with the theory of public schools, and in practice never has been or can be successful. Any attempt to connect the two under the same roof, with the same principal, will uniformly operate disastrously to the common school, and usually with indifferent results as to the other. Whatever gain may accure to the few who may avail themselves of the High School will be purchased at a fearful loss to the great body of the school. It seems hardly necessary to state propositions so obvious, and which are recognized and acted upon by all educators whose views would be entitled to respect.

Wise and Unwise Economy in Schools.—In these days of retrenchment and reform, the popular thing to do is to economize, and the public schools are the first places where retrenchment begins. Extravagant expenditure of the public funds for school purposes cannot be recommended. Lest the voters of this town should suppose that larger sums are expended for schools in this town than in any other of the State, they are referred to the Report of the State Board of Education, in which it is shown that a large number of the towns expend a greater sum in proportion to their grand lists than Windham. President Eliot, of Harvard University, says upon this subject, "Whatever the town may deny itself, let it not deny itself schools, or impair the efficiency of those it has. No retrenchment which injures the schools is true economy, for the ultimate object of true economy is to increase the public weal, and this public weal has its roots in the intelligence, vigor and morality of the population, qualities which are cherished, trained, strengthened and disseminated by the common schools."

To attain to this efficiency we must have educated and permanent teachers, and in order to make them permanent, we must pay them sufficient to afford them a comfortable livelihood. To those who habitually remark, "The schools are no better to-day than they were fifty years ago, notwithstanding the increased expenditure of money;" who say "we taught school for ten dollars a month and boarded around," who would bring the schools of to-

day down upon this platform, we say, "Why not *visit* the schools? Stand no longer *without* the doors, and make comparisons, but select some schools were the teachers are permanent, experienced, educated, faithful and well-paid, and then pass your judgment between continental and centennial times with an unbiased mind."

WOODBRIDGE.—Rev. S. P. Marvin, Acting Visitor.

Prosperity.—Parents and scholars have vied with teachers in promoting the success of the schools, which have seldom been so uniformly good as in the past year. There has been a growing attachment of the scholars for their teachers, and an earnest endeavor by the teachers to promote the highest attainable progress of the scholars. The school year in each district closed with a pic-nic, at which parents, teachers and scholars mingled, with hearty good will, making the closing scenes of school life golden, as the summer's setting sun, with pleasant memories of the past and hopes for the future. Such a close of the school year is eminently useful, by bringing the members of the district together, and awakening friendship between them, as well as deepening the interest of all in the success of our schools.

Two new School Houses have been built during the year. The Middle district set apart a lot containing an acre of ground. Improvements have been begun upon this, which when completed will render it attractive, and will give character for taste and enterprise to the town as well as the district. The new building in the North East district occupies a picturesque situation in an eminence overlooking the valley of West River and the slope of West Rock. The site was the generous gift of public spirited citizens. Special gifts have been made to several districts for procuring globes and other articles, and a liberal spirit has been manifested in all the districts in supplying whatever was desirable for the comfort and convenience of the schools.

Popularity is no sure test of a teacher's excellence. The best teachers are often unpopular with their scholars. The discipline which requires hard study is not agreeable to most children. A teacher that gives them "a good time" will always be more popular than one who puts them on a course of thorough mental training. The inconsistency of parents in this matter is marvelous. Who would ask the advice or follow the judgment of his children in regard to purchasing a horse? And yet the merits of a teacher are often decided in that way. If a teacher is thorough in her instruction, and exacts perfect lessons; if she means work, and the best of work, the children become restive and fault-finding, and parents sometimes join with them, to the injury of all concerned. Some of our best teachers in the past twelve years have either been lost to the town, or have been greatly hindered in their efforts in this manner.

A LIST OF THE TOWNS

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WHIPPLE'S HOME SCHOOL FOR DEAF MUTES.

MYSTIC RIVER, CONN., February 22, 1877.

B. G. NORTHROP, *Secretary of the State Board of Education:*

SIR — Since my last report, the general health of our pupils has been excellent. Only one epidemic has made its appearance among us,—that of sore eyes. But though annoying, none of the cases have, as yet, resulted in anything more than local inflammation, which has yielded readily to treatment.

I have to record the death, from heart disease, of my brother, Walter M. Whipple, which occurred after an illness of only two days, October third, 1876. At the beginning of the term, only about a month previous to his death, he had entered the school as an assistant teacher, and had applied himself to the work with a zeal which nothing less than love for the children, and a real desire for their advancement, could have prompted.

Mr. N. Frank Whipple, one of the proprietors of the Home School, and Mrs. Jennie M. Whipple, my wife, are at present assisting me in the duties of the school-room. They are both experienced teachers, and carry into the school an enthusiasm which at once enkindles a corresponding earnestness among the pupils.

Miss Nanny J. Moredock, who was my assistant teacher from March, 1874, until the close of school, July 1st, 1876, finding her health failing, went to Iowa, to teach a single pupil, in a private family. She reports improving health, and excellent success.

At the beginning of the present school year, we had eleven pupils; but one, a young man from Massachusetts, withdrew after receiving a few weeks' instruction. This I very much regretted, on his account; for he was learning rapidly, and gave promise of becoming, in a comparatively short time, a remarkably plain talker.

I append a list of our present pupils:

William S. Downing, Wilmington, Delaware; Nellie C. Crary, Mystic River, Conn.; James A. Wright, Wilmington, N. C.;

Raymond J. Cone, Riverton, Warren Co., Virginia; Walter N. Pennell, Linwood, Delaware Co., Penn.; Francis G. Thomas, Cheyney, Delaware Co., Penn.; Almira Warren, Albany, N. Y.; Henry Schnakenberg, Hoboken, N. J.; D. Helen McClurg, Pittsburg, Penn.; Willie D. Munger, Bridgeport, Conn.

Of these, one is assisted by the Society of Friends in Philadelphia, Penn., two by the State of Connecticut, and one by the State of New Jersey. The others are supported by their friends. Willie D. Munger has been a pupil at the Clarke Institution, Mass., for seven years; but, failing to make satisfactory progress there in articulation, on the recommendation of Miss Rogers, the Principal, was transferred to this school. I have been instructing him with the aid of my Natural Alphabet, and already his articulation shows decided improvement.

The following extract from a letter written by Miss Annie M. Putnam, to whom I referred in my last report, may be interesting.

"I shall never give my speech up for anything in the world. It is a great enjoyment to me, I assure you. My friends consider it a perfect wonder, and don't find it at all hard to understand me. I am so glad, and so are you, I suppose, who taught me to speak. The Natural Alphabet is considered to be wonderful by all. Many smart and intelligent people think that I have been restored to hearing. Is that not funny? I tell them No; that I cannot hear any better, but I can talk and read the lips. Still they think that I hear a little better, it surprises them so much."

Francis G. Thomas, who entered this school in March, 1876, unable to understand a word from the lips, can now read sentences even when spoken with almost ordinary rapidity. I expect that after the close of the present school-year, he will attend common school at home, reciting orally like the other pupils. The pupil reported from Hoboken, N. J., was placed here last May. After a trial of five months, having made satisfactory progress, both in writing and speaking, he was selected by Governor J. D. Bedle as a State beneficiary, with an annual allowance of three hundred dollars.

During the eight years that I have spent as a teacher of articulation and lip-reading to deaf mutes, I have had pupils from eleven states of the Union, ranging in age from five to thirty-five years, and of nearly every degree of mental ability, from idiocy to precocious intelligence. At the beginning my efforts were those of an experimentalist, trying to develope powers, both mental and physical, which I believed were latent in my pupils, but the existence of which had been generally denied.

The success which has attended my labors has exceeded my early anticipations, and I feel warranted in repeating with emphasis, the statement of my grandfather, the late Jonathan Whipple, that, "any intelligent child, though born deaf, if lacking nothing but hearing can be taught to talk." I remain

Respectfully yours,

ZERAH C. WHIPPLE, *Principal.*

A LIST OF THE SCHOOL VISITORS

IN ALL THE TOWNS OF THE STATE.

These lists are reported by the Visitors of the several towns. The name of the Chairman of the Board, when known, is placed first, that of the Secretary second. Acting Visitors are mostly distinguished by a *. The P. O. address is given, when it is not the same as the name of the town.

ANDOVER, E. P. Skinner, *E. D. White, A. H. Lyman, J. S. Topliff, E. J. Kingsbury, Wm. Dorrance, Walter Abbey, Andrew Phelps, R. E. Phelps.

ASHFORD, *H. W. Morey, (Westford,) *J. D. Gaylord, George Platt, John T. Green;—S. B. Tifft and G. E. S. Amidon, (Westford.)

AVON, A. U. Thompson;—*M. C. Woodford, (West A.,) N. L. Case, Joseph Woodford;—Rev. A. Goldsmith and Rev. P. R. Day, (West A.)

BARKHAMSTED, Sheldon Merrills, *Monroe Hart;—*C. S. Linsley and S. A. Munson, (Riverton,) Daniel Youngs and E. J. Youngs, (Pleasant Valley.)

BEACON FALLS, (All A. V.) D. J. Carrington, Julius C. Coe, W. D. Billerwell.

BERLIN, Samuel Upson, (Kensington,) *Cyrus Root, Jr., S. C. Woodruff, S. F. Talmadge, John Norton;—George Taylor, (West Meriden.)

BETHANY, Rev. Wm. L. Woodruff, S. R. Woodward, *Rev. C. W. Colton.

BETHEL, Willis Judd, *Rev. G. F. Waters, Cyril Benedict, W. H. Judson, Frederic Shepard, A. L. Benedict.

BETHLEHEM, *M. S. Todd, *G. M. Kasson, W. R. Harrison, M. E. Beecher, G. C. Stone, S. P. Hayes.

BLOOMFIELD, H. C. Hoskins, *Dr. Henry Gray, Wm. Case, John Wilcox, Rev. A. Booth, J. C. Capen, Rev. W. N. Walden, Rev. W. A. Hallock, S. J. Mills.

BOLTON, Henry Alvord, *Rev. W. E. B. Moore, Dr. C. F. Sumner, W. C. White, Orlando Sperry;—N. S. Main, (Quarryville.)

BOZRAH, Geo. H. Fuller, (Bozrahville,) *Rev. F. E. Fellows, *Chas. E. Gager.

BRANFORD, *J. J. Bartholomew, L. S. Bagley, Dr. N. B. Hall, H. Y. Nichols, A. M. Babcock, T. F. Hammer, H. W. Hubbard, R. Dibble, Rev. H. Olmstead, William Russell;—M. K. Northam and Wm. Beach, (Stony Creek.)

BRIDGEPORT, *J. C. Loomis, H. T. Shelton, D. H. Sterling, *Edward Sterling, F. W. Zingsem, James Staples, Dr. A. H. Abernethy, Andrew Burke, J. D. Alvord, David Ginand, G. W. Bacon, J. S. Hanover. H. M. Harrington, Superintendent.

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BRISTOL, *Rev. Dr. L. Griggs, B. F. Hawley, Rev. M. B. Roddan, Rev. J. D. Gilliland, Rev. C. H. Riggs, Rev. D. D. Wolf.

BROOKFIELD, E. T. Shepard, (Southville,) *Rev. A. C. Pierce and Dr. A. L. Williams, (B. Centre,) Horace Beers, Herbert Beers;—E. N. Hawley, (Hawleyville.)

BROOKLYN, E. L. Preston;—*Frank Day, (Danielsonville,) *Rev. E. S. Beard, C. E. Hazen;—E. L. Cundall and Willard Day, (Danielsonville.)

BURLINGTON, Romeo Elton, *Seth A. Keeney, B. L. Pond, Duell Holcomb.

CANAAN, (Falls Village P. O.,) Dr. C. B. Maltbie, *M. A. Dean, E. B. Gillette, Rev. W. C. Smith, D. E. Dean;—C. B. Cook, (South C.)

CANTERBURY, Dr. E. Baldwin, (South C.,) *T. G. Clark, *W. S. Adams, *C. S. Burlingham, Henry Kendall;—Elderkin Waldo and Amos Witter, (Parkersville,) Nathan Allen, (Westminster,) Clifton Peck, (Hanover.)

CANTON, B. O. Higley;—*W. W. Bidwell, (Collinsville,) *Rev. D. B. Hubbard, (C. Centre,) Dr. G. F. Lewis and D. C. Holbrook, (Collinsville,) Geo. J. Case.

CHAPLIN, Rev. C. E. Griggs, *Rev. F. Williams, Joseph Foster, J. W. Lincoln, Lester Bill;—Charles Peck, (North Windham.)

CHATHAM, *F. A. Lillie, *Rev. J. S. Ives, H. M. Dunham, E. G. Cone, A. H. Conklin, (all East Hampton P. O.;) *Harrison Brainard and Rev. D. Denison, (Cobalt,) T. A. Shepard, (Middle Haddam,) J. H. Selden.

CHESHIRE, Rev. Dr. S. J. Horton, *J. P. Beach, J. R. Paddock;—*C. T. Hotchkiss and R. H. Guilford, (West C.,) Theo. A. Cook, (Brooks Vale.)

CHESTER, Joshua L'Hommedieu, *Dr. S. W. Turner, *Rev. W. D. Morton.

CLINTON, G. E. Elliott, A. H. Stevens, *J. B. Wright, *E. C. Winslow, E. R. Kelsey, J. D. Leffingwell, J. R. Merrell, F. A. Sturges, Alfred Hull, J. A. Spencer, J. L. Davis, E. E. Wright.

COLCHESTER, A. A. Baker, *Rev. S. G. Willard, Dr. R. R. Carrington, R. C. Foote;—*D. S. Bigelow, (Westchester,) Demas Carrier, (North W.)

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COLUMBIA, E. D. Dewey, *Rev. F. D. Avery, Dr. J. LaPierre, N. K. Holbrook, W. A. Collins, J. C. Brown.

CORNWALL, John Catlin;—*M. S. Nickerson and A. D. Warner, (West C.,) *Rev. C. N. Fitch, (North C.,) W. F. Harrison, (C. Bridge,) T. R. Baldwin.

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CROMWELL, A. Dowd, *W. E. Hulbert, *Rev. H. S. Stevens, S. P. Polley, W. A. Stickney, S. B. Wilcox.

DANBURY, L. D. Brewster, *E. F. Hendrick, *Rev. D. M. Hodge, Samuel Tweedy, W. F. Taylor, E. J. Partrick.

DARIEN, Charles Brown, *Rev. Louis French, C. S. Whitney, J. B. Selleck James Curzon, W. H. Bates, C. A. Bates, Jr., C. H. Andrews, M. E. Mead.

DERBY, G. H. Peck, *B. F. Culver, *S. M. Gardner, Rev. L. B. Baldwin, Dr. G. L. Beardsley, M. E. Banks, C. N. Rogers, (all Birmingham P. O.,) *John Lindley and Rev. H. T. Brady, (Ansonia.)

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EAST GRANBY, C. P. Clark, *H. L. Clark, B. E. Smith;—J. P. Brace, (Tariffville,) F. F. Stevens and V. E. Viets, (Copper Hill.)

EAST HADDAM, (All A. V.) Rev. S. McCall;—G. L. Brownell and E. E. Johnson, (Moodus,) S. R. Holmes, (Hadlyme,) C. W. Chapman, (Millington,) F. A. Tiffany.

EAST HARTFORD, H. R. Hayden;—*E. H. Little, (Burnside,) F. R. Childs, J. O. Goodwin, Elijah Ackley;—E. R. Ensign, (Hockanum.)

EAST HAVEN, H. B. Forbes, (South Haven,) *Rev. O. E. Shannon, *S. W. F. Andrews, Edward Allen;—*Rev. E. E. Hall and Willis Hemingway, (Fair Haven.)

EAST LYME, H. P. Dwyer, (Niantic,) *E. L. Beckwith, *W. T. Cutter, F. P. Moore;—Chas. Babcock and E. W. Beckwith, (Niantic.)

EASTON, R. H. Wheeler, W. H. Grumman, C. H. Powell, Frederic Wheeler, W. H. Everett, Henry Wakeman.

EAST WINDSOR, *J. S. Allen, (Broad Brook,) *S. T. Wells, P. L. Blodgett;—Rev. L. T. Spaulding, E. K. Leonard and Andrew Hamilton, (Broad Brook,) J. F. Fitts, (E. W. Hill,) M. H. Bancroft and Rev. E. Goodridge, (Warehouse Point.)

ELLINGTON, * Henry McKnight, * Sylvester Morris, *Rev. D. S. Holbrook, Rev. G. I. Wood, Dr. J. A. Warren, Isaac Bancroft, Otis Loomer;—H. C. Aborn and E. H. Dimock, (Square Pond.)

ENFIELD, *Chester Johnson, Dr. E. F. Parsons, *Rev. John Howson, *L. A. Upson, (all Thompsonville,) *T. B. Potter, Albert Abbe;—*C. M. Abbe, (Melrose,) E. Prickett and H. R. Chapin, (Hazardville,)

ESSEX, *Giles Potter, C. S. Munger, M. D. Mather, Edwin Pratt, J. E. Redfield, W. H. Williams, J. I. Hutchinson, C. O. Spencer;—*S. M. Pratt, E. K. Comstock, E. B. Bull, and L. D. Webber, (Centre Brook.)

FAIRFIELD, (All A. V.) Rev. John Warren, (Black Rock,) Rev. J. K. Lombard, Samuel Morehouse;—Dr. M. V. B. Dunham, (Greenfield Hill,) J. F. Jennings and W. R. Meeker, (Southport.)

FARMINGTON, J. S. Rice, *Julius Gay, Thomas Treadwell, Edward Norton, Rev. E. A. Smith, C. L. Whitman;—Samuel Frisbie, E. M. Mills and Rev. E. R. Brown, (Unionville.)

FRANKLIN, *S. A. Frink, (Baltic,) *H. L. M. Ladd, (North F.,) *H. W. Kingsley, G. H. Griffing, O. B. Hyde;—T. G. Kingsley, (Yantic.)

GLASTONBURY, (All A. V.) Rev. T. B. Fogg, J. W. Hubbard, A. A. Babcock, (all South G.,) N. W. French, Rev. W. S. Wright, W. H. Griswold;—L. T. Hollister, Geo. C. Andrews, and A. D. Clark, (East G.)

GOSHEN, F. A. Lucas, (West G.,) *Lyman Hall, Henry Norton, M. D. F. Smith, A. Bartholomew, J. H. Wadhams.

GRANBY, *Lucien Reed, (West G.,) *Rev. H. P. Osgood, *Rev. T. D. Murphy, J. G. Rowley;—Anson Cooley, A. L. Loveland and A. L. Holcomb, (North G.,) C. S. Cutler, Wallace Kendall.

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GROTON, Rev. J. A. Woodhull;—*S. S. Lamb, (Mystic,) *D. A. Daboll, Jr., (Centre Groton,) *W. H. Potter and Rev. J. D. S. Pardee, (Mystic River), Rev. N. T. Allen.

GUILFORD, *Rev. Dr. L. T. Bennett, Charles Griswold, *Rev. G. W. Banks, Dr. G. P. Reynolds, J. S. Benton, G. B. Spencer;—R. M. Leete, (Leete's Island,) *J. R. Rossiter and E. W. Rossiter, (North G.)

HADDAM, J. H. Russell, *S. W. Shailer, Isaac Arnold, Orrin Shailer, 2d, Bezaleel Shailer;—Ansel Spencer and G. A. Freeman, (Higganum,) L. N. Arnold, (Haddam Neck,) A. W. Tyler, (Tylerville.)

HAMDEN, G. S. Benham;—*Elias Dickerman, (New Haven,) Horace Tuttle, Andrew McKean, John Kinney, A. H. Smith, (the last four Mt. Carmel.)

HAMPTON, Wm. Brown, *David Greenslit, J. W. Congdon, G. W. Bennett, R. W. Robinson, Philip Pearl, Alphonso Albro, Henry Clapp.

HARTFORD, Dr. David Crary, F. A. Brown, *J. H. Brocklesby, M. R. West, N. B. Stevens, Erastus Collins, Rev. J. H. Twichell, Hawley Kellogg, J. R. Buck.

HARTLAND, *H. L. Wilcox, (West H.,) *E. A. Collins, Dr. H. S. Bell, and J. G. Twining, (East H.,) T. E. Williams, (West H.,) Geo. N. Thompson, (H. Centre.)

HARWINTON, Rev. George Curtiss, *Martin Cook, M. L. Goodwin, Dr. Virgil Buell, Ambrose Fenn;—I. T. Rowe, (Terryville.)

HEBRON, *Rev. H. Bryant;—*W. H. Horton, (Gilead,) *Andrew Sharp, *F. C. Bissell, C. D. Way, Rev. G. S. Dodge, N. S. Brown;—C. N. Brown and R. P. Gilbert, (Gilead.)

HUNTINGTON, Dr. G. A. Shelton, C. E. Lattin, *D. S. Brinsmade, F. G. Perry, G. M. Wakely, Horace Wheeler, (all Birmingham P. O., except Mr. Lattin.)

KENT, John Chase, (South K.,) G. A. Vincent, Perry Hufcut, W. O. Page, Rev. T. D. Barclay;—I. J. Beardsley, New Preston.

KILLINGLY, Dr. S. Hutchings, (West K.,) *G. W. Pike and G. E. Chesbrough, (South K.,) W. E. Hyde, T. W. Greenslit, and Anthony Ames, (West K.,) Dr. E. A. Hill, East K.,) D. C. Jenks.

KILLINGWORTH, *Francis Turner, W. E. Griswold, *N. H. Evarts.

LEBANON, (All A. V.) Rev. D. B. Lord, G. D. Spencer, Justin Clark, E. S. Hinckley, Isaac Gillett;—J. N. Abell, (Liberty Hill.)

LEDYARD, Rev. C. Cutting, *W. T. Cook, George Fanning, I. G. Geer, J. S. Spicer;—*J. A. Gallup, C. M. Gallup, and W. J. Brown, (Mystic,) C. H. Chapman, (Centre Groton.)

LISBON, (All A. V.) J. K. Adams and C. J. Bromley, (Jewett City,) Henry Lyon, (Greeneville.)

LITCHFIELD. (No returns, though three times sent for.)

LYME, J. W. Bill;—*H. B. Sisson and Dr. J. G. Ely, (Hamburg,) Rev. Dr. E. F. Burr, Wm. Hall;—W. C. Spencer, (Hadlyme.)

MADISON, Rev. J. A. Gallup, *F. A. Kelsey, J. H. Meigs, Dennis Tuttle, Wm. S. Hull;—J. M. Hill, (North M.)

MANCHESTER, Rev. S. W. Robbins;—*R. R. Dimock, J. A. Fitch and J. B. Latham, (North M.,) Dr. O. B. Taylor;—Dr. C. W. Jacques, (Buckland.)

MANSFIELD, L. R. Dunham, (Eagleville,) *Rev. K. B. Glidden, *Rev. A. J. Chaplin, R. P. Barrows, Dr. E. G. Sumner, G. A. Hammond, J. N. Barrows, S. E. Bennett, (All M. Center,) Henry Huntington, (Merrow Station.)

MARLBOROUGH, *J. J. Bell, *John Lord, A. B. Latham, J. Kneeland, Horatio Bolles, Wm. E. Jones.

MERIDEN, Eli Ives;—*Rev. J. T. Pettee, L. G. Riggs, C. R. Fasy, J. H. Huggins, Dr. C. H. S. Davis, Rev. C. A. Graeber, A. B. Mather, (all West M., except Mr. Ives,) J. S. Wightman, (South M.)

MIDDLEBURY, A. S. Clark, *H. W. Munson, Levings Abbott, G. B. Bristol, Dr. M. DeForest, Jr., Frederic Chamberlain.

MIDDLEFIELD, Charles Hubbard, *Rev. A. C. Denison, M. W. Terrill, P. M. Augur, G. W. Bacon, J. O. Couch.

MIDDLETOWN, S. A. Robinson, S. J. Starr, W. T. Elmer, J. M. Hubbard, G. W. Guy, H. H. Wilcox.

(City District,) Rev. Dr. F. Gardiner, Dr. G. W. Burke, *C. L. Loomis, H. D. A. Ward, S. L. Warner, G. W. Atkins, C. C. Hubbard, E. B. Nye, A. W. Bacon. *Henry E. Sawyer, Superintendent.

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MONROE, F. M. Cargill;—*Rev. David Osborn and David Warner, (Stepney,) B. H. French and C. S. French, (Stepney Depot,) James Burr.

MONTVILLE, C. E. Wheeler, *S. H. Browning, *M. V. B. Brainard, J. S. Latimer, C. A. Wheeler;—Wm. B. Walden, (Uncasville,) *F. W. Thatcher, Mark Latimer and H. R. Strickland, (Chesterfield.)

MORRIS, *S. M. Ensign, *C. S. Loveland, Robert Pierpont, L. B. Hall, S. W. S. Skilton;—Dwight Griswold, (West M.)

NAUGATUCK, *H. H. Johnson, *Rev. J. L. Scott, *Dr. F. B. Tuttle, *Rev. D. A. Easton, B. A. Peck.

NEW BRITAIN, J. N. Bartlett, *Charles Northend, L. O. Smith, Elihu Burritt, Rev. H. L. Griffin, Rev. Luke Daly, W. W. Woodruff, Dr. E. B. Lyon, J. A. O'Brien, J. A. Trant, Rev. J. H. Drumm, W. L. Humason.

NEW CANAAN, F. M. Bliss, *Rev. J. Greenleaf, Dr. W. G. Brownson, W. E. Husted, L. M. Monroe, J. F. Silliman.

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NEW HARTFORD, *J. H. Betts, (Pine Meadow,) *N. B. Merrill and Rev. M. Knight, (Nepaug,) John Richards, Rev. F. H. Adams, J. B. Foster.

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(Westville District, Westville P. O.,) Charles Clapp, H. L. Hotchkiss, *L. W. Peck, L. W. Beecher, J. D. Payne, D. G. Mitchell, E. P. Merriman, J. N. Austin, W. C. Whipple.

NEWINGTON, Jedediah Deming, *E. M. Steele, S. A. Steele, C. K. Atwood, J. S. Kirkham;—J. G. Stoddard, (N. Junction.)

NEW LONDON, J. C. Learned, *Ralph Wheeler, Benjamin Stark, I. C. Tate, Rev. Dr. O. E. Daggett, Rev. J. P. Brown, John Bishop, George Strong, C. E. Hewitt.

NEW MILFORD, A. N. Baldwin, (Northville,) *C. A. Todd, E. F. Morehouse, E. S. Green, J. W. Addis, P. N. Hall, Rev. H. S. Clark;—*Scott Buckingham, (Northville,) *S. C. Ferriss, (Gaylordsville.)

NEWTOWN, C. C. Warner, *S. B. Wheeler, *E. L. Johnson, *J. O. Dolohery;—*Homer Hawley, (Hawleyville,) *C. M. Parsons, (Sandy Hook.)

NORFOLK, *Rev. J. F. Gleason, *Riley Stillman, *Mrs. C. E. Mills, S. D. Northway, F. E. Porter, L. D. Alling, Silas Palmer, H. J. Holt, Miss L. P. Stevens.

NORTH BRANFORD, William Maltby, (Northford,) *Rev. E. L. Clark, W. D. Ford, Charles Page;—F. C. Bartholomew and *Rev. †Dr. D. H. Short, (Northford.)

NORTH CANAAN, (Canaan P. O.) Rev. E. Whittlesey, A. T. Roraback, C. W. Camp, D. L. Freeman, Charles Gillett;—M. B. Tobey, (C. Valley.)

NORTH HAVEN, A. F. Austin, *Dr. R. B. Goodyear, S. B. Thorp, G. W. Smith, J. B. Goodsell, H. D. Todd;—Eli Hayes, (Montowese,) Charles Smith and J. E. Bishop, (Clintonville.)

NORTH STONINGTON, Rev. J. R. Bourne;—*Rev. C. T. Douglass, (Westerly R. I.,) J. L. York.

NORWALK, *J. W. Wilson, *Rev. J. A. Hamilton, H. M. Prowitt, Levi Warner;—*J. J. Millard, C. W. LeCount, Rev. J. Taylor and L. J. Blake, (South N.,) Rev. H. H. Rouse, (Rowayton.)

NORWICH, Rev. R. P. Stanton, (Greeneville,) *J. W. Crary, Rev. S. O. Seymour, Rev. W. S. Palmer, Rev. S. H. Giesy, A. Rathbone;—Rev. Dr. H. P. Arms and G. G. Pitcher, (N. Town,) G. R. Hyde, (Yantic.)

(Town Street District,) Rev. Dr. H. P. Arms, (N. Town,) J. S. Lathrop;—W. R. Potter, G. G. Pitcher, Geo. McClellan and W. B. Lathrop, (N. Town;)—Edward Harland, L. A. Hyde, B. W. Hyde.

(Central District, Norwich P. O.,) Rev. S. O. Seymour, Costello Lippitt, Horace Whittaker, E. H. Learned, J. M. Thayer, Rev. J. Davis, B. P. Learned, Dr. P. Cassidy, C. H. Dillaby. *N. L. Bishop, Superintendent.

(West Chelsea District, Norwich P. O.,) E. S. Bishop, *P. W. Bruce, *L. W. Dudley, and three others.

OLD LYME, (Lyme P. O.,) T. S. Swan, John Smith, *Rev. Wm. B. Cary, John Swaney, H. M. W. Brainerd;—R. M. Champion, (South L.)

OLD SAYBROOK, (Saybrook P. O.,) Edwin Ayer, *Wm. J. Clark, R. B. Chalker, G. W. Denison, C. W. Monson:—*Joseph Kellogg, (New Saybrook.)

† Deceased.

ORANGE, Dr. J. M. Aimes, *Rev. E. S. Lines, Rev. W. E. Brooks and Dr. J. F. Barnett, (all West Haven,) *Edwin Robbins, (Tyler City,) I. P. Treat.

OXFORD, N. J. Wilcoxson, Dr. Lewis Barnes, John Harger, C. E. Lum, O. C. Osborn, Samuel Hawkins, Jr.

PLAINFIELD, Dr. W. A. Lewis, (Moosup,) *J. S. French, E. T. Morse, Horace Allen, (all Central Village,) W. I. Hyde, (Moosup,) Rev. S. H. Fellows and H. H. Leavens, (Wauregan,) Rev. L. Burleigh, Waldo Tillinghast.

PLAINVILLE, T. P. Strong, *J. S. Corban, *Rev. N. J. Seeley, Rev. A. Hall, Wm. Newton, Hiram Carter.

PLYMOUTH, Apollos Markham, *L. D. Baldwin, A. P. Fenn, W. B. Fenn, E. M. Talmadge, George Langdon;—Rev. L. S. Griggs, N. T. Baldwin and R. D. H. Allen, (Terryville.)

POMFRET, I. P. Briggs, (P. Centre,) *S. S. Cotton and G. S. Feeter, (P. Landing,) E. P. Matthewson, Horace Sabin, Dr. L. Williams, Hudson Smith;—W. I. Bartholomew, (Putnam), J. W. Clapp, (Abington.)

PORTLAND, Dr. C. A. Sears;—*W. S. Strickland, *Rev. J. S. Bayne and J. C. Gladwin, (Gildersleeve's Landing,) N. B. Smith, (Cobalt), C. G. Southmayd, Rev. W. B. Lee, Rev. A. W. Seavey, G. B. Cleveland.

PRESTON, (all A. V.,) J. A. Cook;—N. S. Wentworth, (Norwich), Aaron Lucas, (Poquetannock.)

PROSPECT, John Gillette, *Rev. F. Countryman, H. N. Clark, Merritt Clarke, A. S. Plumb, W. Clark.

PUTNAM, Joseph Lippitt, *Rev. Dr. B. F. Bronson, T. P. Leonard, S. H. Seward, H. S. Perry, Gilbert Chandler.

READING, Rev. Joseph Smith, *Rev. S. G. Law, *W. E. Duncomb;—Daniel Sanford and Rev. E. P. Shaw, (R. Ridge,) A. B. Hill, (Georgetown.)

RIDGEFIELD, Dr. D. L. Adams, *Dr. W. S. Todd, *A. Y. Paddock, *Rev. D. D. Bishop, D. S. Sholes, Gould Rockwell, J. L. Hunt, E. H. Smith, C. B. Northrop.

ROCKY HILL, † *Rev. C. H. Webster, *Rev. J. A. Shipman, *A. D. Griswold, H. O. Chambers, C. C. Butler, R. P. Merriam, W. F. Bulkley, D. H. Welles, Samuel Dimock.

ROXBURY, E. G. Seeley, *H. S. Hurlbut, *Charles Sanford, Rev. D. E. Jones, G. E. Pierce, Levi Smith.

SALEM, *Henry Fox, *Rev. J. Ordway, R. A. Williams, F. E. Chadwick, N. N. Williams, A. O. Gallup.

SALISBURY, J. R. Ward, (Falls Village,) *J. H. Hurlburt and W. A. Crowell, (Lime Rock,) G. B. Burrall, (Lakeville,) M. L. Goodwin, Rev. Lyman Warner.

SAYBROOK, (Deep River P. O.,) *G. S. Hefflon, *M. N. Griswold, *A. D. Platt, F. A. Denison, J. A. Shipman, F. L'Hommedieu, F. W. Williams, J. A. Smith, L. J. Platts, D. M. Tyler;—G. K. Hull and W. L. Jones, (Winthrop.)

SCOTLAND, Abner Robinson, *Rev. A. A. Hurd, Dr. I. B. Gallup, A. W. Maine, A. W. Carey, W. M. Burnham.

SEYMOUR, S. Y. Beach, *W. C. Sharp, *Dr. J. Kendall, *V. H. M'Ewen, Edmund Day, Carlos French, S. H. Canfield;—F. M. Clemons, (Birmingham,) Nathan Holbrook, (Ansonia.)

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† Deceased.

SHARON, A. C. Woodward, *Dr. C. H. Shears, H. C. Rowley, R. E. Goodwin, Geo. A. Kelsey, J. C. Smith.

SHERMAN, C. A. Mallory, *D. B. Mallory, Dr. J. N. Woodruff, C. I. Leach, W. A. Caldwell, W. B. Pepper, L. B. Hungerford, I. B. Hall, E. B. Prosser.

SIMSBURY, Seymour Pettibone, (Weatogue,) *D. B. M'Lean, Rev. J. L. Tomlinson, A. G. Case, H. W. Ensign;—Dr. G. W. Sanford, (Tariffville.)

SOMERS, M. F. Gowdy, (Somersville,) L. W. Percival, Rev. C. H. Gleason, Dr. W. B. Woods, Miss Harriett Pomeroy;—*Rev. C. L. Ayer, (Somersville.)

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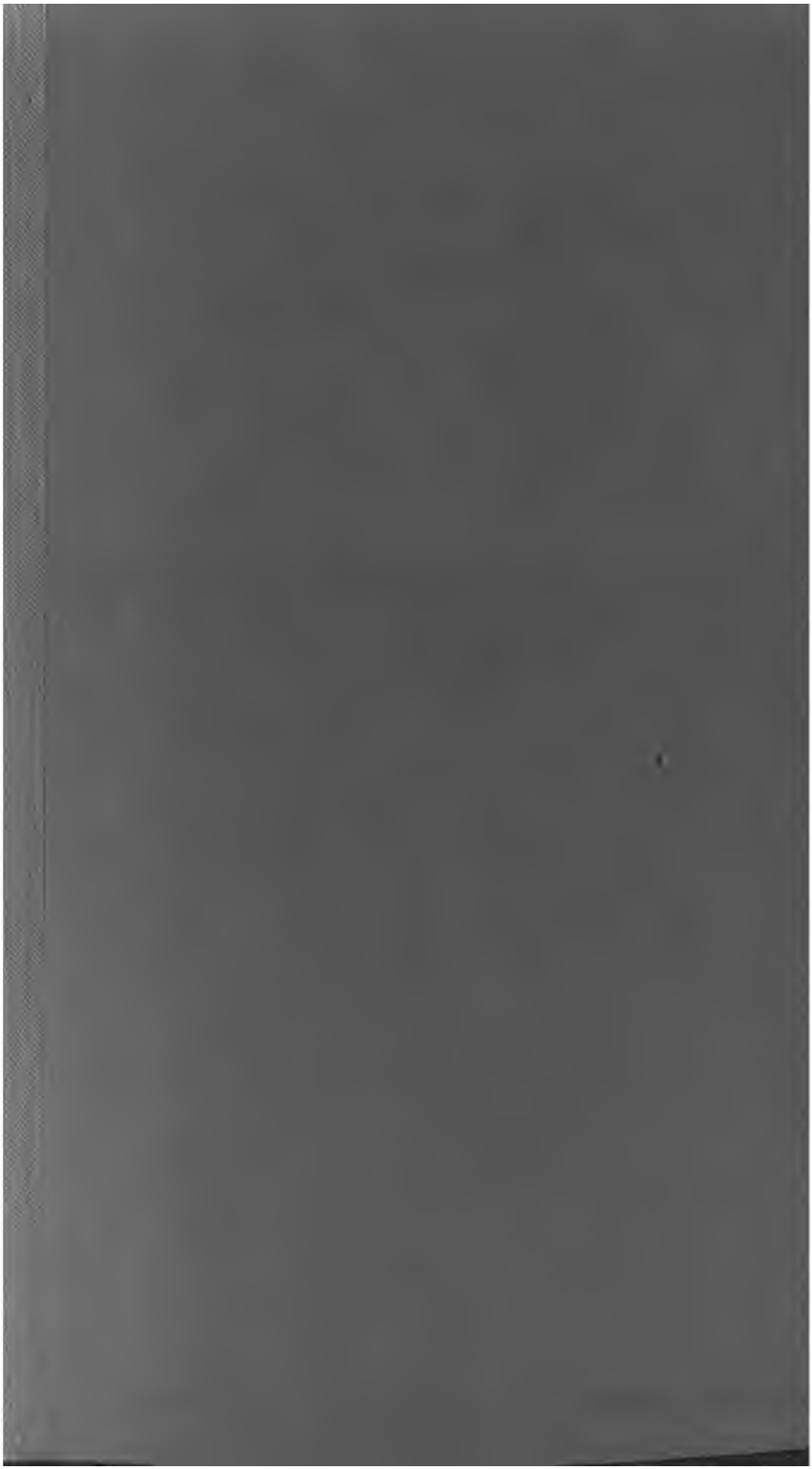
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